

SFACCESS USER MANUAL

**DANIEL MEASUREMENT AND CONTROL
HOUSTON, TEXAS**

**Part Number: 3-9000-509
REVISION F**

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DANIEL

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INTRODUCTION

This manual, the DANIEL INDUSTRIES SFACCESS USERS MANUAL, Daniel Part No. 3-9000-509, describes the installation, features and operation of the DANIEL INDUSTRIES SFACCESS (SOLARFLOW PLUS Access) SOFTWARE PROGRAM, Daniel Part No. 3-2470-040.



WARNING: Do NOT use the DANIEL INDUSTRIES SFACCESS SOFTWARE PROGRAM, or any other DANIEL INDUSTRIES software programs, in a hazardous environment, which contains potentially flammable or explosive atmospheric conditions, unless the program is housed and operated in a safe and appropriately-designed computer hardware system (or systems).

The DANIEL INDUSTRIES SFACCESS (SOLARFLOW PLUS Access) SOFTWARE PROGRAM (hereafter referred to as the SFACCESS program) is designed to contact, configure and collect data from DANIEL INDUSTRIES SOLARFLOW-PLUS computer hardware through the use of IBM or IBM-compatible personal computers (PC's). Since DANIEL INDUSTRIES, INC. does not recommend or supply IBM or IBM-compatible personal computers to be used in hazardous operating environments, all indemnity pertaining to the use of such a device is the sole responsibility of the user.

The SFACCESS program emulates the capabilities of the DANIEL INDUSTRIES HAND HELD DATA TERMINAL (HHDT), but provides the user the conveniences of a personal computer (PC) screen and keyboard. The SFACCESS program enables the user to

- set up a SOLARFLOW-PLUS computer in the field
- customize, change application parameters in, and collect data from a SOLARFLOW-PLUS computer
- calibrate or monitor analog inputs
- view and print SOLARFLOW-PLUS data and event logs
- erase data and event logs
- view graphs of data logs
- create export files for use by other programs

PROGRAM FEATURES

The DANIEL INDUSTRIES SFACCESS program is a menu-driven program with menus, options and windows designed to allow the user efficient operation of the system in both a

- personal computer (PC) environment and
- SOLARFLOW PLUS computer environment.

This section categorizes, lists and briefly explains

- the basic operational features of the program, including all menus, sub-menus, and windows, along with their various options and selections
- the designated key functions, which allow the user to successfully use and navigate through the system.

DUAL PROGRAM ENVIRONMENT

The SFACCESS program has the unique distinction of containing two MAIN MENU screens with each one containing distinct options, sub-menus, and windows. The necessity for such a dual arrangement is because the SFACCESS program is designed to link together, operate in and communicate between a personal computer (PC) environment and a SOLARFLOW PLUS computer environment.

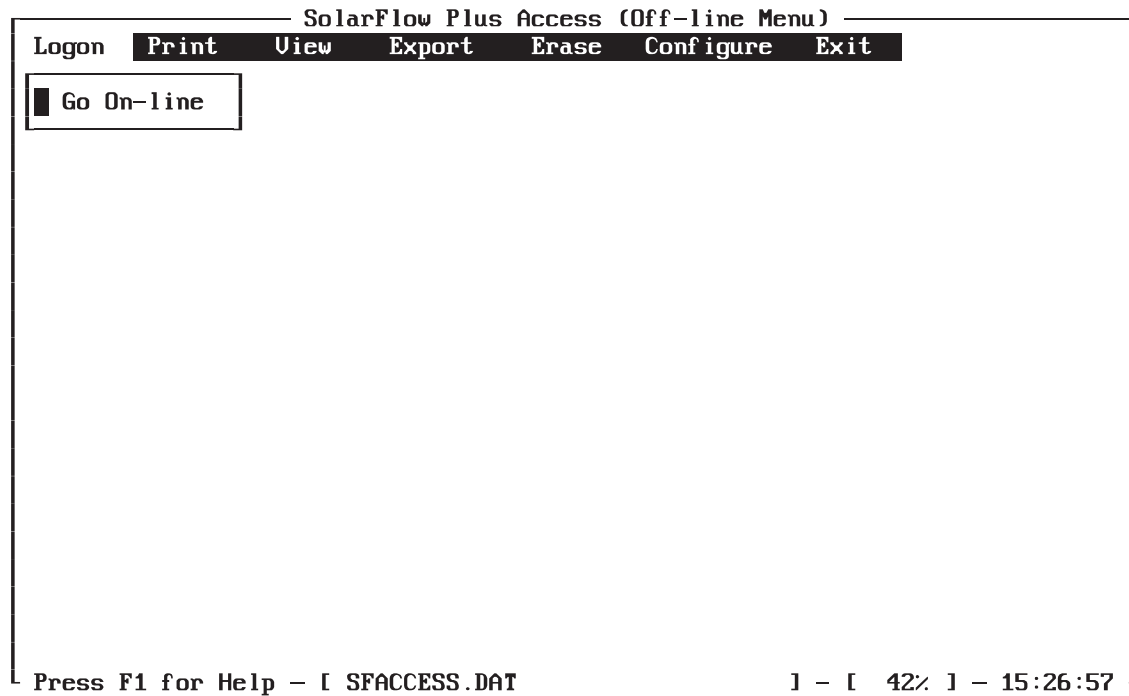
The MAIN MENU screen for the personal computer (PC) environment is designated as the "SOLARFLOW PLUS ACCESS (Off-line menu)", and the MAIN MENU screen for the SOLARFLOW PLUS computer environment is designated as the "SOLARFLOW PLUS ACCESS (On-line menu)".

Broad features of both environment "halves" will be briefly presented in following sub-sections, which are entitled "OFF-LINE" MAIN MENU OVERVIEW, and "ON-LINE" MAIN MENU OVERVIEW. For further information about where to access complete program details, refer to the sub-section in this manual, which is entitled MANUAL DESIGN FEATURES.

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"OFF-LINE" MAIN MENU OVERVIEW

The "Off-line" MAIN MENU screen, which is shown in the following illustration, is the first screen to appear after the SFACCESS program is activated. As shown, the screen illustrates the "top title" line, the "MAIN MENU bar" line and the "bottom title" line.



As previously indicated, the "Off-line" MAIN MENU screen features, which are also reflected in most of the "Off-line" program's other screens, include the

"TOP TITLE" LINE

The first or top line of the screen designates or identifies the program as the "SOLARFLOW PLUS ACCESS (Off-line Menu)".

"MAIN MENU BAR" LINE

The second line, which appears immediately beneath the first or "top title" line, is the "MAIN MENU BAR" line. This line, which is also referred to as the "option" or "menu" line, displays the seven primary, "fixed" menu options. Each of these primary options contains additional options or sub-menu selections.

From left to right, the seven MAIN MENU screen options are

Logon,

which allows the user to initiate communication (logon) with the SOLARFLOW PLUS computer. However, before this function can be performed, a security code is required.

When the "Off-line" MAIN MENU screen first appears, the "Logon" option is automatically highlighted by default.

Print,

which allows the user to print collected data logs, event log, and configuration information either from all locations or selected locations. A beginning/ending date range and other options defining the scope of the report may also be selected.

SFACCESS

View,

which allows the user to view graph and text data logs, miscellaneous logs, and event logs.

Export,

which converts information collected by SFACCESS to file formats in order to be usable by other programs.

Erase,

which erases all information collected from the SOLARFLOW PLUS computer.

Configure,

which through its various sub-options allows

- the user to select the serial port (either COM1 or COM2) to be used by SFACCESS to communicate with the SOLARFLOW PLUS computer
- for the setup of various printer operational features
- for the setup of the export function's output-file type (either SFDC or ASCII), and the destination file name(s)
- for customizing the operation of the view function
- for the selection of a monitor display from three available choices: color, LCD, or monochrome
- for the selection of a pathname of the file used to store collected SOLARFLOW PLUS log information

- for the setup of a password system to restrict access to SFACCESS
- the saving of configuration changes made through the previous menu options

Exit,

which allows the user to exit the SFACCESS program and return to DOS.

MAIN MENU OPTION MENUS

There are several "sub-menus" (or windows), which can be individually and sequentially accessed from the seven primary MAIN MENU options described above. Each of these menus contains various sub-menus, selections, or options, which will be discussed and explained in detail in later sections.

However, the MAIN MENU options, along with any associated menus, are shown in the following illustrations. These menus, which are also accessed and viewed from left to right on the MAIN MENU screen, are

Logon

Go On-line

Print

All Collected Data

Selected Location

View

Data Logs (Graph)
Data Logs (Text) Miscellaneous Logs Event Logs

Export

All Collected Data
Selected Location

Erase

All Collected Data

Configure

SFPlus Communications Setup
Printer Function Setup Export Function Setup View Function Setup Display Function Setup Database Setup Password Setup Save Configuration

Exit

Go to DOS

"BOTTOM TITLE" LINE

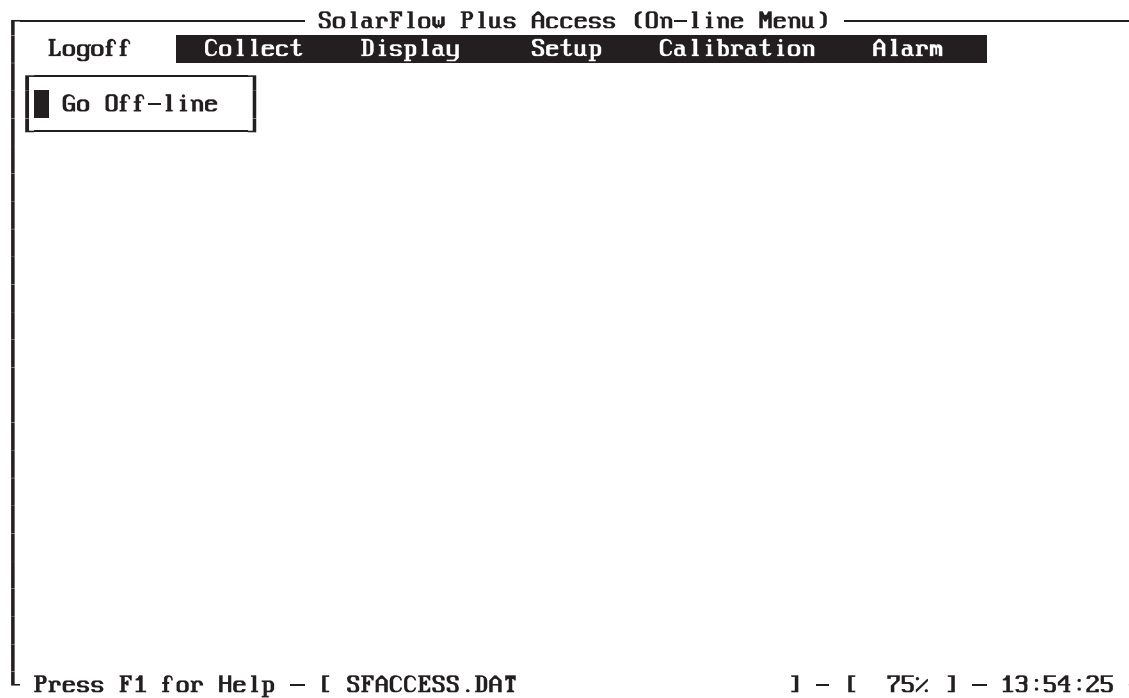
This line, which appears at the bottom of most program screens, and is sometimes referred to as the "status" line, provides several types of information. From left to right, this information is

- the "Press F1 for Help" message, which reminds the user what key to press in order to access help information on the program's screens, operations, and functions.
- the path and file name of the currently active data base
- the current amount of disk space being used, which is expressed as a percentage
- the current time

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"ON-LINE" MAIN MENU OVERVIEW

The "On-line" MAIN MENU screen, which is shown in the following illustration, is the first screen to appear after the user logs on to the SOLARFLOW PLUS computer side of the SFACCESS program. As shown, the screen illustrates the "top title" line, the "MAIN MENU bar" line and the "bottom title" line.



As previously indicated, the "On-line" MAIN MENU screen features, which are also reflected in most of the "On-line" program's other screens, include the

"TOP TITLE" LINE

The first or top line of the screen designates or identifies the program as the "SOLARFLOW PLUS ACCESS (On-line Menu)".

"MAIN MENU BAR" LINE

The second line, which appears immediately beneath the first or "top title" line, is the "MAIN MENU BAR" line. This line, which is also referred to as the "option" or "menu" line, displays the six primary, "fixed" menu options. Each of these primary options contains additional options or sub-menu selections.

From left to right, the six MAIN MENU screen options are

Logoff,

which allows the user to terminate communication (logoff) with the SOLARFLOW PLUS computer, and return to the "Off-line" MAIN MENU of the SFACCESS program.

When the "On-line" MAIN MENU screen first appears, the "Logoff" option is automatically highlighted by default.

Collect,

which allows the user to collect Event, Data, and Miscellaneous logs, as well as various configuration and channel information over selected periods of time, and send this data to a specific database file

SFACCESS

Display,

which allows the user to view the various setup parameters and calculated values in the SOLARFLOW PLUS.

Setup,

which allows the user to select and set the various setup parameters and calculated values in the SOLARFLOW PLUS.

Calibration,

which allows the user to match the SOLARFLOW PLUS analog input circuitry/software with the outputs from the analog transmitters that drive the SOLARFLOW PLUS device, and to monitor the various input values.

Alarm,

which allows the user to scan and acknowledge (or not acknowledge) enabled alarms in the SOLARFLOW PLUS unit currently logged on.

MAIN MENU OPTION MENUS

There are several "sub-menus" (or windows), which can be individually and sequentially accessed from the six primary MAIN MENU options described above. Each of these menus contains various sub-menus, selections, or options, which will be discussed and explained in detail in later sections.

However, the MAIN MENU options, along with any associated menus, are shown in the following illustrations. These menus, which are also accessed and viewed from left to right on the MAIN MENU screen, are

Logoff

Go Off-line

Collect

Update Since Last Collection

Specified Number of Days Specified Date Range All Stored Information
--

Display *

General Information

Security Code List User Report Definition Communication Configuration Data Log Definition Analog Inputs Status Inputs Control Outputs Scale Values Rates and Volumes Calculation Configuration Alarm Configuration Calculation Factors

(* this menu is application specific)

Setup *

General Information
Security Code List
User Report Definition
Communication Configuration
Data Log Definition
Analog Inputs
Control Outputs
Scale Values
Calculation Configuration
Alarm Configuration
Calculation Factors

Calibration

Pressures
Others

Alarm

Acknowledge

"BOTTOM TITLE" LINE

This line, which appears at the bottom of most program screens, and is sometimes referred to as the "status" line, provides several types of information. From left to right, this information is

- the "Press F1 for Help" message, which reminds the user what key to press in order to access help information on the program's screens, operations, and functions.

(* - this menu is application specific)

- the path and file name of the currently active data base
- the current amount of disk space being used, which is expressed as a percentage
- the current time

KEY FUNCTIONS

The SFACCESS program contains several designated keys, which are programmed to allow the user quickly to perform various operations and functions. However, on occasion, when manipulating a graph screen, the function or operation of these keys may temporarily change, or other keys, which are used infrequently, may be temporarily activated. When these situations occur, the user will be given complete instructions about their use and operation.

The designated function keys are

- F1 - the F1 function key, which accesses HELP for a designated menu, sub-menu, screen, field, option, selection, etc.. When viewing of the HELP screen is completed, the ESC (Escape) key allows the user to exit from HELP.
- F2 - the F2 function key, which allows the user to
 - "skip" the entering of a value in a particular field, such as might be found in the "On-line" MAIN MENU's "Calibration" option
 - "Insert to List" a value or entry to a list, such as might be found in the "On-line" MAIN MENU's "Setup" option.
- F3 - the F3 function key, which allows the user to "Delete from List" a value or entry on a list, such as might be found in the "On-line" MAIN MENU's "Setup" option.
- F9 - the F9 function key, which allows the user to select
 - a Popup Channel/Tag List in the "On-line" MAIN MENU's "Setup" option

- a specific database directory and all files currently available in the selected directory through the "Database Setup" option in the "Off-line" MAIN MENU's "Configure" option.

F10 - the F10 function key, which is used to terminate data entry and to proceed with an operation. Occasionally, the F10 function key and the ENTER key perform the identical operation on some data entry screens.

ESCAPE

KEY - the ESC (escape) key, which allows the user to "escape" or exit from a menu, sub-menu, screen, etc., or to abort and exit from data entered on a particular menu,

ENTER

KEY - the ENTER key, which allows the user to

- obtain access to a highlighted function or menu
- select an entry on a single-field, data-entry screen and to proceed with an operation
- select an entry on a multiple-field, data-entry screen and move the highlighted bar to the next data-entry field

DELETE

KEY - the DELETE key, which allows the user to key data entry changes by overwriting existing characters,

SPACE

BAR - the SPACE BAR, which allows the user to toggle through screen options or choices,

SFACCESS

UP

ARROW - the UP ARROW key, which allows the user to move the highlighted selection bar up through menu and screen options or selections. Since the menus allow for wrap-around, pressing the UP ARROW key will cause the highlighted bar to move to the bottom menu selection when it is located at the top of the menu.

DOWN

ARROW - the DOWN ARROW key, which allows the user to move the highlighted selection bar down through menu and screen options or selections. Since the menus allow for wrap-around, pressing the DOWN ARROW key will cause the highlighted bar to move to the top menu selection when it is located at the bottom of the menu.

RIGHT

ARROW - the RIGHT ARROW key, which allows the user to

- move to the right within a field
- move to the right through menu and screen options or selections
- exit from some of the sub-menus in the same manner as the ESCAPE key

LEFT

ARROW - the LEFT ARROW key, which allows the user to

- move to the left within a field
- move to the left through menu and screen options or selections,
- exit from some of the sub-menus in the same manner as the ESCAPE key

MANUAL DESIGN FEATURES

Attempting to identify and describe the combined features and operation of both "halves" of the SFACCESS program, which contain the "Off-line" (PC) and "On-line" (SOLARFLOW PLUS computer) MAIN MENU's, would be confusing. Consequently, this manual is designed to allow the user to navigate through and locate

- specific information about the features of the "Off-line" MAIN MENU (for the PC) in Section 3, which is entitled, PC MAIN MENU CONTENTS, and
- specific information about the features of the "On-line" MAIN MENU (for the SOLARFLOW PLUS computer) in Section 4, which is entitled, SOLARFLOW PLUS MAIN MENU CONTENTS.

Both sections (3 and 4) will attempt to explore all aspects of the program's content "halves", including all the sub-menus and sub-menu options and selections, without needlessly duplicating information that may be discussed in other portions of this manual.

INSTALLATION AND INITIAL SETUP**INTRODUCTION**

This section addresses the installation and initial setup of the DANIEL INDUSTRIES SFACCESS PROGRAM, including its hardware requirements, and installation and configuration procedures. Because the SFACCESS program operates in a dual environment, which is composed of both the personal computer (PC) environment and the SOLARFLOW PLUS computer environment, the configuration procedure involves

- the "Off-line" MAIN MENU's "Configure" option menu (for the PC), which controls the selection of communications port, printer, export, view, display, database, password and save options, and
- the "On-line" MAIN MENU's "Setup" option menu (for the SOLARFLOW PLUS computer), which controls the selection of general information, transmitter inputs, control outputs, scale values, calculation configuration, alarm configuration, and calculation factors options.

The "Setup" menu performs the functions of setup location and setup unit as found in the DANIEL INDUSTRIES HAND HELD DATA TERMINAL (HHDT).

HARDWARE REQUIREMENTS

Minimum hardware required for using the SFACCESS program includes:

- a 12 Megahertz (MHz), 80286-based IBM or IBM-compatible computer with no less than 640 kilobytes (Kb) of RAM memory
- two 720 kilobyte (Kb) floppy drives, or one 720 Kb floppy disk drive and a hard disk drive
- a CGA, EGA, OR VGA compatible graphics board and monitor
- a parallel or serial printer.

In addition, the DANIEL INDUSTRIES SOLARFLOW PLUS is connected to the PC by using the standard interconnect cable, Daniel Part No. 3-2460-165, which is supplied with the DANIEL INDUSTRIES HAND HELD DATA TERMINAL. This cable is fitted with a customized connector for the SOLARFLOW PLUS, and a DB25 connector for the PC. However, if the PC being connected to the SOLARFLOW PLUS utilizes a 9-pin serial port instead of a 25-pin serial port, the user will need to obtain a DB25-to-DB9 adaptor from a PC supply vendor in order to complete the SOLARFLOW PLUS to PC connection.

For more detailed information about the DANIEL INDUSTRIES SOLARFLOW PLUS, refer to the latest revision of the DANIEL INDUSTRIES SOLARFLOW PLUS SYSTEM REFERENCE MANUAL, Daniel Part No. 3-9000-497

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SOFTWARE REQUIREMENTS

Minimum software required for using the SFACCESS program includes:

- a 3.0 or later version of either MS-DOS or PC-DOS for the PC operating environment
- either the one 3.5" (720 Kb) or the two 5.25" (360 Kb) floppy diskettes, which come furnished with the DANIEL INDUSTRIES SFACCESS SOFTWARE PROGRAM, Daniel Part No. 3-2470-040.

INSTALLATION PROCEDURES

After minimum hardware and software requirements have been satisfied, the SFACCESS program can be installed on the PC.



CAUTION: Before installing the SFACCESS program on the PC, backup copies of the original program diskettes should be made, and the original diskettes should be stored in a secure location.

Although installation is essentially the same for both the 3.5" (720 Kb) and 5.25" (360 Kb) floppy diskettes, there are some differences worth noting. Consequently, installation procedures for the 3.5" (720 Kb) and 5.25" (360 Kb) floppy diskettes will be described separately.

To install the program using the 3.5" floppy diskette

1. insert the single 3.5" (720 Kb) floppy diskette into the appropriate drive on the PC
2. type the letter corresponding to the diskette drive where the diskette was inserted, followed by a colon, and the word

INSTALL

and press the ENTER key

3. after the brief appearance of a DANIEL INDUSTRIES copyright and identification screen, an initial prompt screen will appear with the message(s), "This program will install SFACCESS on your computer system and verify the integrity of the distribution disk. You may press the ESC

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(Escape) key at any time to abort the installation. INSTALL will ask you several questions about your computer hardware."

The user must then "Press ESC to quit, any other key to continue. . ."

4. a screen will appear and the program will request that a drive be selected where the SFACCESS program can be installed. The user should use the UP and DOWN, or PAGE UP and PAGE DOWN keys to move to and select the appropriate disk drive, and press the ENTER key
5. a screen will appear with the message(s), "The subdirectory is the location on your disk where SFACCESS (3.5") will be installed. If you do not wish to change the displayed default, simply press ENTER. To change the subdirectory, use the BACKSPACE to remove the default and enter a new subdirectory name."

In addition, the screen will also display the "Destination subdirectory?" pop-up window with "\\SFACCESS" shown as the default subdirectory. After accepting the default or replacing it with another entry, the user must press the ENTER key.

6. a screen will appear with the message(s), "SFACCESS (3.5") will now be copied onto the destination drive you selected." In addition, the program will inform the user that the "CONFIG.SYS" file must contain "a minimum of FILES=20 and BUFFERS=20".

Since SFACCESS's installation program can safely modify the user's existing CONFIG.SYS file, the user is informed that "after all of the SFACCESS (3.5") files have been copied onto your computer, you will be asked if it is OK for the install program to modify your CONFIG.SYS file. If you select YES, the install program will check to determine if your CONFIG.SYS actually needs to be modified, and if so, (will) modify the file."

The user must then "Press ESC to quit, any other key to continue. . ."

7. a screen will display the "VERIFY" pop-up window with the message, "May I create/modify your CONFIG.SYS file if needed (Y/N)?". At this point, the entry of a "Y" (YES) or "N" (NO) response will determine the next series of screens that appears. In turn, the series of screens that appear will indicate if
 - no changes need to be made to the CONFIG.SYS file,
 - the system has automatically created or modified the existing CONFIG.SYS file, or
 - the user must incorporate certain changes into the file.
8. after the CONFIG.SYS has been created or modified, a final installation screen will appear indicating "Installation complete.", and requesting that the user "Press any key to continue. . ." the program.
9. the user is returned to the DOS prompt, which indicates the directory where the SFACCESS program has just been installed. For example, if the program were installed onto the C drive, the user would read,

C:\SFACCESS>

At this prompt, the user may now activate the program by typing

SFACCESS

and pressing the ENTER key.

10. To activate the program after a shutdown, the user must type

CD\SFACCESS

and press the ENTER key,

SFACCESS

and then type

SFACCESS

and press the ENTER key.

To install the program using the 5.25" floppy diskette

1. insert Disk # 1 of the 5.25" (360 Kb) floppy diskettes into the appropriate drive on the PC
2. type the letter corresponding to the diskette drive where the diskette was inserted, followed by a colon, and the word

INSTALL

and press the ENTER key

3. after the brief appearance of a DANIEL INDUSTRIES copyright and identification screen, an initial prompt screen will appear with the message(s), "This program will install SFACCESS on your computer system and verify the integrity of the distribution disk. You may press the ESC (Escape) key at any time to abort the installation. INSTALL will ask you several questions about your computer hardware."

The user must then "Press ESC to quit, any other key to continue. . ."

4. a screen will appear and the program will request that a drive be selected where the SFACCESS program can be installed. The user should use the UP and DOWN, or PAGE UP and PAGE DOWN keys to move to and select the appropriate disk drive, and press the ENTER key
5. a screen will appear with the message(s), "The subdirectory is the location on your disk where SFACCESS (5.25") will be installed. If you do not wish to change the displayed default, simply press ENTER. To change the

subdirectory, use the BACKSPACE to remove the default and enter a new subdirectory name."

In addition, the screen will also display the "Destination subdirectory?" pop-up window with "\SFACCESS" shown as the default subdirectory. After accepting the default or replacing it with another entry, the user must press the ENTER key.

6. a screen will appear with the message(s), "SFACCESS (5.25") will now be copied onto the destination drive you selected." In addition, the program will inform the user that the "CONFIG.SYS" file must contain "a minimum of FILES=20 and BUFFERS=20".

Since SFACCESS's installation program can safely modify the user's existing CONFIG.SYS file, the user is informed that "after all of the SFACCESS (5.25") files have been copied onto your computer, you will be asked if it is OK for the install program to modify your CONFIG.SYS file. If you select YES, the install program will check to determine if your CONFIG.SYS actually needs to be modified, and if so, (will) modify the file."

The user must then "Press ESC to quit, any other key to continue. . ."

7. after the first of the two 5.25" program diskettes has been installed, a screen will display a "PRESS ANY KEY" pop-up window with the message, "Please place the Master Distribution Disk labeled "SFACCESS (5.25")/Disk 2 of 2 (version #) in drive A:". After doing this, the user must "Press the ESC key to abort, any other key to continue. . ." the installation process.
8. a screen will display the "VERIFY" pop-up window with the message, "May I create/modify your CONFIG.SYS file if needed (Y/N)?" At this point, the entry of a "Y" (YES) or "N" (NO) response will determine the next series of screens that appears. In turn, the series of screens that appear will indicate if

SFACCESS

- no changes need to be made to the CONFIG.SYS file,
 - the system has automatically created or modified the existing CONFIG.SYS file, or
 - the user must incorporate certain changes into the file.
9. after the CONFIG.SYS has been created or modified, a "PRESS ANY KEY" pop-up window with the message, "Please remove the disk in drive A: and replace it with the disk labeled: "SFACCESS (5.25")/Disk 1 of 2". After doing this, the user must "Press the ESC key to abort, any other key to continue. . .".
 10. a final installation screen will appear indicating "Installation complete.", and requesting that the user "Press any key to continue. . ." the program.
 11. the user is returned to the DOS prompt, which indicates the directory where the SFACCESS program has just been installed. For example, if the program were installed onto the C drive, the user would read,

C:\SFACCESS>

At this prompt, the user may now activate the program by typing

SFACCESS

and pressing the ENTER key.

12. To activate the program after a shutdown, the user must type

CD\SFACCESS

and press the ENTER key,

and then type

SFACCESS

and press the ENTER key.

SETUP PROCEDURES

Since the SFACCESS program operates in a dual computer environment, which is composed of both the personal computer (PC) and the SOLARFLOW PLUS computer, the configuration or setup procedures for both of these will be addressed separately.

The configuration or setup procedures for the PC will be presented first, and then the configuration or setup procedures for the SOLARFLOW PLUS computer will be presented.

PC SETUP PROCEDURES



CAUTION: While making choices for the various options in the CONFIGURE menu (for the PC), pressing the ESC (Escape) key will ABORT the process and eliminate all previously selected entries.

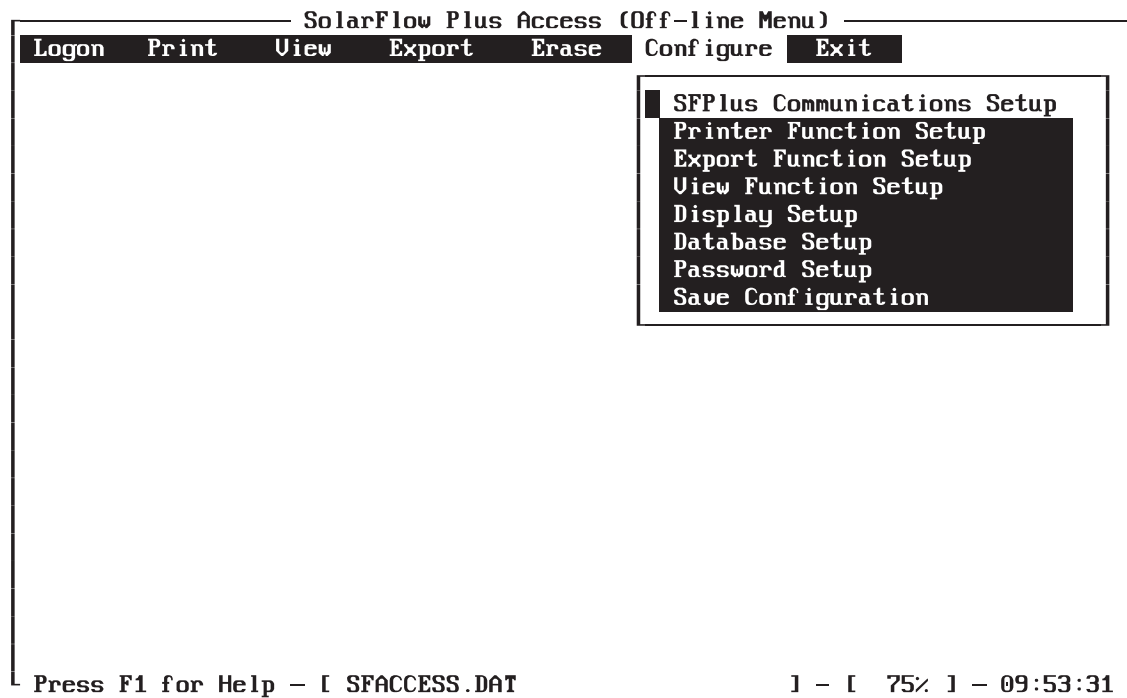
The "Configure" option is the sixth of the seven "Off-line" MAIN MENU options. It contains eight main sub-options, which are the "SFPlus Communications Setup", "Printer Function Setup", "Export Function Setup", "View Function Setup", "Display Setup", "Database Setup", "Password Setup", and "Save Configuration" options. The "Configure" option allows the user to

- to specify the communications port of the PC to be used to communicate with the SOLARFLOW PLUS computer
- setup various operational features of the printer function
- select the export type, which is either SFDC or ASCII
- customize operation of the View function related to the graphing of collected data
- specify the type of screen display
- select the drive path, and name of the database file used to store collected data
- establish passwords to limit access to the SFACCESS program
- save any configuration changes made under the "Configure" option.

SFACCESS

To select and highlight the "Configure" option, which is shown in the following illustration,

- use the LEFT or RIGHT ARROW keys.



The "SFPlus Communications Setup" Option

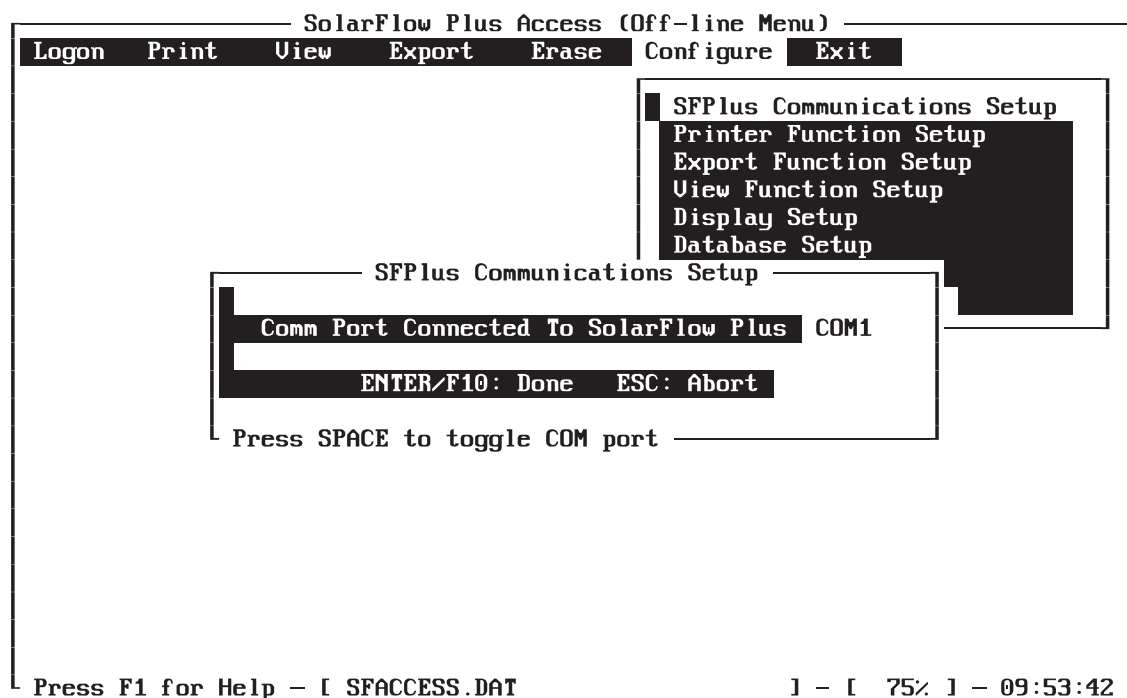
The first of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "SFPlus Communications Setup" option.

To select and highlight the "SFPlus Communications Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the SFPLUS COMMUNICATIONS SETUP screen, which is shown in the following illustration.



SFACCESS

After the "SFPlus Communications Setup" screen has been accessed,

- either accept the "Comm Port Connected To SolarFlow Plus" default setting of COM1, or
- use the SPACE BAR key to toggle and choose a setting of COM2.

After the setting for the option has been selected,

- press either the ENTER or F10 key to indicate that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

The "Printer Function Setup" Option

The second of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Printer Function Setup" option.

To select and highlight the "Printer Function Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the PRINTER FUNCTION SETUP screen, which is shown in the following illustration.

The screenshot displays the 'SolarFlow Plus Access (Off-line Menu)' interface. At the top, a menu bar includes 'Logon', 'Print', 'View', 'Export', 'Erase', 'Configure', and 'Exit'. The 'Configure' option is selected, leading to the 'Printer Function Setup' screen. This screen contains several configuration fields: 'Printer Type' (Ascii), 'Character Size' (Normal), 'Paper Width' (8 Inch), 'Print To' (LPT1), 'Serial Baud Rate' (9600), 'Serial Word Size' (Eight), 'Serial Parity' (None), 'Serial Stop Bits' (ONE), and 'Output File Name' (DANREPT.PRN). A status bar at the bottom of the setup screen shows 'F10: Done' and 'ESC: Abort'. Below the setup screen, a prompt reads 'Press SPACE to select printer type'. At the very bottom of the screen, a footer displays 'Press F1 for Help - [SFACCESS.DAT' on the left and '1 - [75%] - 09:54:32' on the right.

SFACCESS

After the PRINTER FUNCTION SETUP screen has been accessed,

- use the UP and DOWN ARROW keys to select and highlight the "Printer Type" option, which has options of IBM, EPSON, and ASCII with the default being ASCII, and use the SPACE BAR key to toggle and choose a setting,

With an IBM/Epson or IBM/Epson-compatible printer, special codes may be sent to put the device into a compressed print mode for output of reports. Many printer manufacturers supply an operation mode to emulate either an IBM/Epson or IBM/Epson-compatible printer. However, if the printer in use cannot emulate either of these, then the "ASCII" setting should be selected.

- use the UP and DOWN ARROW keys to select and highlight the "Character Size" option, which has options of Normal and Compressed with the default being Normal, and use the SPACE BAR key to toggle and choose a setting,

With an IBM/Epson or IBM/Epson-compatible printer, the "Compressed" setting may be selected to obtain compressed character-size print reports from the SFACCESS program. If the printer cannot be configured for compressed character-size print, or if normal character-size characters are preferred, the "Normal" setting should be selected.

- use the UP and DOWN ARROW keys to select and highlight the "Paper Width" option, which has options of 8 Inch and 14 Inch with the default being 8 inch, and use the SPACE BAR key to toggle and choose a setting,

The "Paper Width" option permits the use of wide carriage printers, which use 14 inch (or greater) paper. If the "14 Inch" setting is selected, then more columns of data may be printed per line of paper

to allow the printing of some data logs without wrapping the data to the next printable line.

- use the UP and DOWN ARROW keys to select and highlight the "Print To" option, which has options of LPT1, LPT2, LPT3, COM1, COM2 and File with the default being COM1, and use the SPACE BAR key to toggle and choose a setting,

Settings of LPT1, LPT2, and LPT3, refer respectively to Parallel Printer (output) Ports One, Two, or Three. Settings of COM1 and COM2, refer respectively to Serial (output) Ports One and Two. The "File" setting causes all reports to be written in an ASCII format to a disk file, which is specified in the "Output File Name".

NOTE: Printer options (Serial Baud Rate, Serial Word Size, Serial Parity and Serial Stop Bits) determine the operation of Serial Communications Port One (COM1) or Serial Communications Port Two (COM2) only when the "Print to" setting is defined as "COM1" or "COM2". Since these options are set to match the parameters of a specific serial printer, reference should be made to the factory printer manual for more complete details.

- use the UP and DOWN ARROW keys to select and highlight the "Serial Baud Rate" option, which has options of 9600, 110, 150, 300, 600, 1200, 2400, and 4800 with the default being 9600, and use the SPACE BAR key to toggle and choose a setting,

SFACCESS

- use the UP and DOWN ARROW keys to select and highlight the "Serial Word Size" option, which has options of Seven and Eight with the default being Eight, and use the SPACE BAR key to toggle and choose a setting,

The "Serial Word Size" option determines the number of data bits that will be used to make one data word. The choices are for either seven data bits or eight data bits per word.

- use the UP and DOWN ARROW keys to select and highlight the "Serial Parity" option, which has options of None, Even and Odd with the default being None, and use the SPACE BAR key to toggle and choose a setting,

The "Serial Parity" option determines whether and how data parity is used in the serial communications.

- use the UP and DOWN ARROW keys to select and highlight the "Serial Stop Bits" option, which has options of One and Two with the default being One, and use the SPACE BAR key to toggle and choose a setting,

The "Serial Stop Bits" option determines the number of data stop bits used at the end of a serial word.

- use the UP and DOWN ARROW keys to select and highlight the "Output File Name" option with the default being DANREPT.PRN, and either use the default setting or enter a new output file name.

The Output File Name, which must contain a file name, and may contain a drive and/or path name to acknowledge different drives and sub-directories, determines where data will be stored on disk. To change the default file name, enter a new report output file name.

After the settings for each option have been selected,

- press either the ENTER or F10 key to indicate that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

SFACCESS

The "Export Function Setup" Option

The third of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Export Function Setup" option.

To select and highlight the "Export Function Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the EXPORT FUNCTION SETUP screen, which is shown in the following illustration.

The screenshot displays the 'SolarFlow Plus Access (Off-line Menu)' interface. At the top, a menu bar includes 'Logon', 'Print', 'View', 'Export', 'Erase', 'Configure', and 'Exit'. The 'Configure' option is selected, leading to the 'SFPlus Communications Setup' screen. Within this screen, the 'Export Function Setup' option is highlighted. The 'Export Function Setup' screen contains the following fields and options:

- Export Type:** SFDC
- SFDC File Options:**
 - SFDC Output File Name:** DANDATA\$.SFP
- ASCII File Options:**
 - Data Log File Name:** DANDATA.OUT
 - Misc. Channels File Name:** DANMISC.OUT
 - Event Log File Name:** DANEVENT.OUT
- Previous File Option:** Append
- Navigation:** F10: Done, ESC: Abort

At the bottom of the 'Export Function Setup' screen, it says 'Press SPACE to select export file type'. The bottom status bar of the main window reads 'Press F1 for Help - [SFACCESS.DAT' on the left and '] - [75%] - 09:54:56' on the right.

After the EXPORT FUNCTION SETUP screen has been accessed, at the Export Type option,

- either accept the "Export Type" default setting of SFDC, or
- use the SPACE BAR key to toggle and choose a setting of ASCII.

NOTE: If the export function is performed for use with the DANIEL INDUSTRIES SFDC program, the user should select SFDC as the export type. Otherwise, the ASCII export type allows separation of the various files associated with the export.

Under the SFDC File Options section,

- use the UP and DOWN ARROW keys to select and highlight the "SFDC Output File Name" option, which has a default setting of DANDATA\$.SFP, and either use the default setting, or enter a new SFDC Output File Name,

The "SFDC Output File Name" option determines the drive/path/filename of SFDC output data. To change the default, enter a new drive/path/filename.

Under the ASCII File Options section,

- use the UP and DOWN ARROW keys to select and highlight the "Data Log File Name" option, which has a default setting of DANDATA.OUT, and either use the default setting or enter a new Data Log File Name,

SFACCESS

The "Data Log File Name" option, which determines the name of the file that will hold ASCII data logs exported from the SFACCESS database, must have a file name. To change the default, enter a new file name.

- use the UP and DOWN ARROW keys to select and highlight the "Misc.(Miscellaneous) Channels File Name" option, which has a default of DANMISC.OUT, and either use the default setting or enter a new Misc. Channels File Name,

The "Misc. Channels File Name" option, which determines the name of the file that will hold ASCII miscellaneous logs exported from the SFACCESS database, must have a file name. To change the default, enter a new file name.

- use the UP and DOWN ARROW keys to select and highlight the "Event Log File Name", which has a default setting of DANEVENT.OUT, and either use the default setting or enter a new Event Log File Name,

The "Event Log File Name" option, which determines the name of the file that will hold ASCII event logs exported from the SFACCESS database, must have a file name. To change the default, enter a new file name.

Finally,

- use the UP and DOWN ARROW keys to select and highlight the "Previous File Option" option, which has options of Append and Overwrite with the default being Append, and use the SPACE BAR key to toggle and select the treatment of previous fields under the "Previous File Option" option,

The "Previous File Option" allows the user to append or overwrite previous data.

Once the option settings have been selected,

- press the F10 key to indicate both that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

SFACCESS

The "View Function Setup" Option

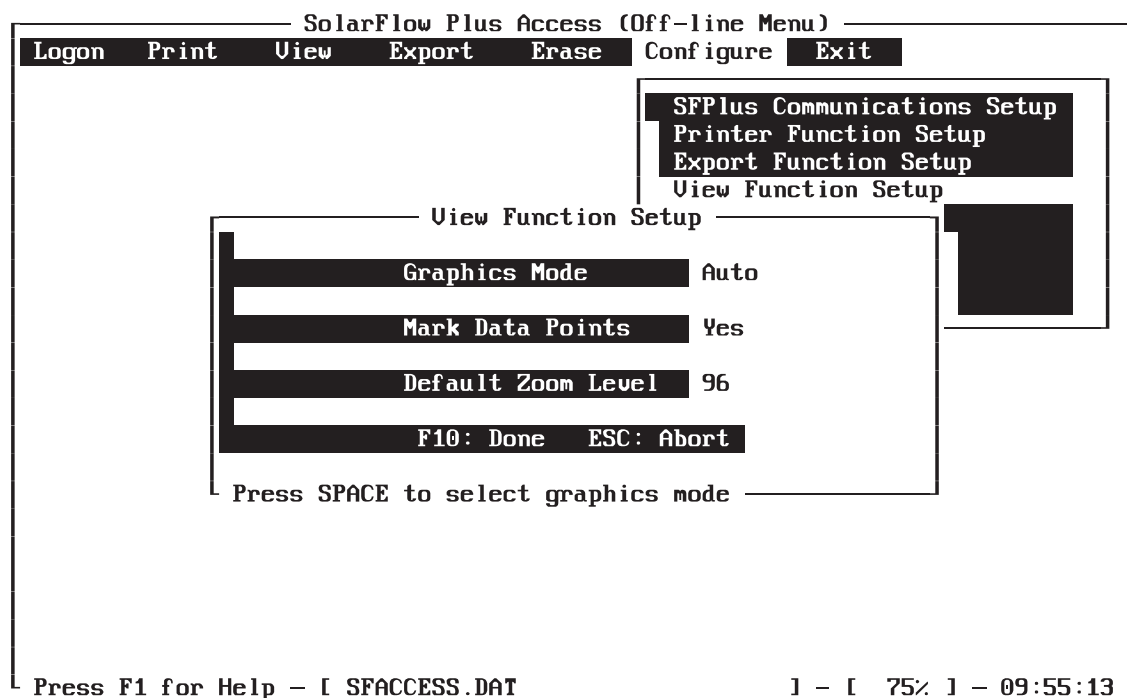
The fourth of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "View Function Setup" option.

To select and highlight the "View Function Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the VIEW FUNCTION SETUP screen, which is shown in the following illustration.



After the VIEW FUNCTION SETUP screen has been accessed,

- use the UP and DOWN ARROW keys to select and highlight the "Graphics Mode" option, which has options of Auto, CGA, EGA, and VGA with the default being Auto, and use the SPACE BAR key to toggle and choose a setting,

NOTE: Some "non-standard" graphic-display adapter boards cannot automatically be recognized by the SFACCESS program. However, the video mode options can be used to "force" the video display adapter into the proper mode.

The SFACCESS program has the capability of graphically displaying data on either a CGA, EGA, or VGA display monitor. "AUTO" mode allows the program to automatically determine what graphics modes are supported by the hardware.

NOTE: The CGA video display mode shows white data against a dark background.

- use the UP and DOWN ARROW keys to select and highlight the "Mark Data Point" option, which has options of Yes and No with the default being Yes, and use the SPACE BAR key to toggle and choose a setting,

The "Mark Data Points" option allows for three distinctive marks, which are an asterisk, circle and a square, to be placed on a graph to differentiate one line from another. This allows monitors that cannot display color graphs to differentiate one line from another.

- use the UP and DOWN ARROW keys to select and highlight the "Default Zoom Level" option, which has options of 96, 192, 288, 576, 24, and 48 with the default being 96, and use the SPACE BAR key to toggle and choose a setting,

The "Default Zoom Level" option, which is numbers indicating data points, allows the user to set the number of logs to be displayed when graphs are first shown.

Once the option settings have been selected,

- press the F10 key to indicate both that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

The "Display Setup" Option

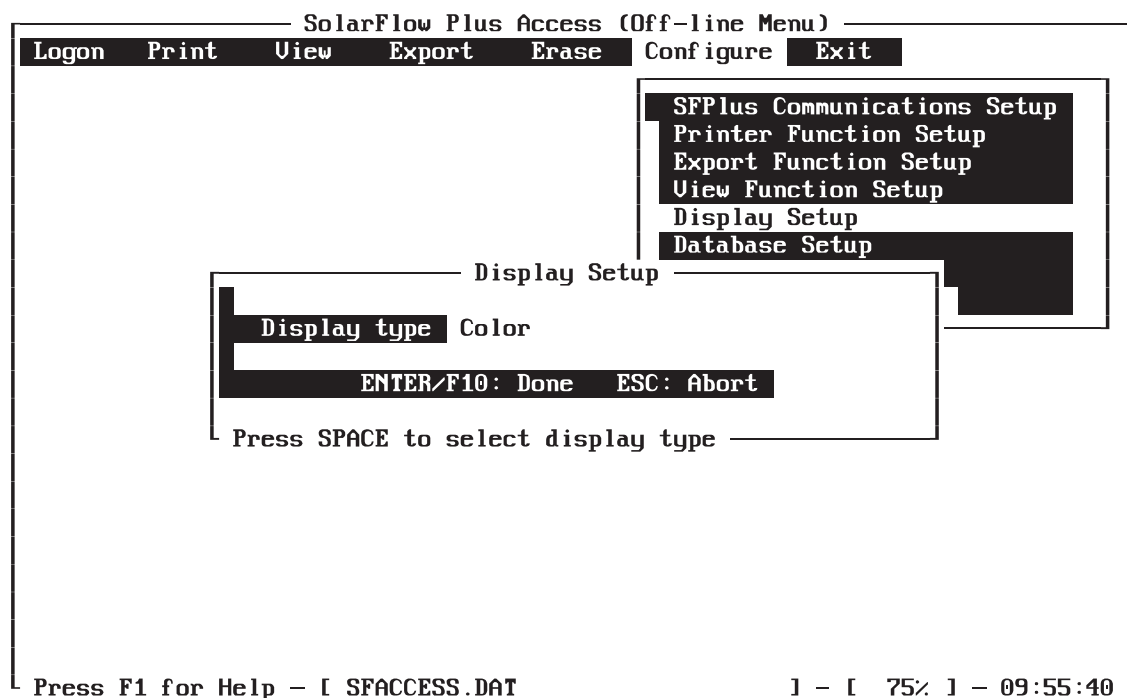
The fifth of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Display Setup" option.

To select and highlight the "Display Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the DISPLAY SETUP screen, which is shown in the following illustration.



SFACCESS

After the DISPLAY SETUP screen has been accessed,

- use the UP and DOWN ARROW keys to select and highlight the "Display type" option, which has options of LCD, Color, Monochrome with the default being LCD, and use the SPACE BAR key to toggle and choose a setting,

The "LCD" setting is for LCD (liquid crystal display) monitors (or other monitors) that display gray scales, the "Color" setting is for color display monitors and the "Monochrome" setting is for monochrome monitors, which display neither colors or gray scales.

After the setting for the option has been selected,

- press either the ENTER or F10 key to indicate that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

The "Database Setup" Option

The sixth of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Database Setup" option.

To select and highlight the "Database Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the DATABASE SETUP screen, which is shown in the following illustration.

The screenshot displays the 'SolarFlow Plus Access (Off-line Menu)' interface. At the top, a menu bar contains options: Logon, Print, View, Export, Erase, Configure, and Exit. The 'Configure' option is selected, leading to a sub-menu with the following options: SFPlus Communications Setup, Printer Function Setup, Export Function Setup, View Function Setup, Display Setup, and Database Setup. The 'Database Setup' option is highlighted. Below this, a box titled 'Database Setup' contains the text 'Database path/name' followed by 'sfaccess.dat'. A status bar within this box shows 'F9: Directory', 'ENTER/F10: Done', and 'ESC: Abort'. Below the box, a prompt reads 'Enter destination path/file name to store collected data'. At the bottom of the screen, a footer displays 'Press F1 for Help - [SFACCESS.DAT' on the left and '] - [75%] - 09:56:13' on the right.

```
SolarFlow Plus Access (Off-line Menu)
Logon  Print  View  Export  Erase  Configure  Exit

SFPlus Communications Setup
Printer Function Setup
Export Function Setup
View Function Setup
Display Setup
Database Setup

Database Setup
Database path/name sfaccess.dat
F9: Directory  ENTER/F10: Done  ESC: Abort

Enter destination path/file name to store collected data

Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 09:56:13
```

SFACCESS

After the DATABASE SETUP screen has been accessed,

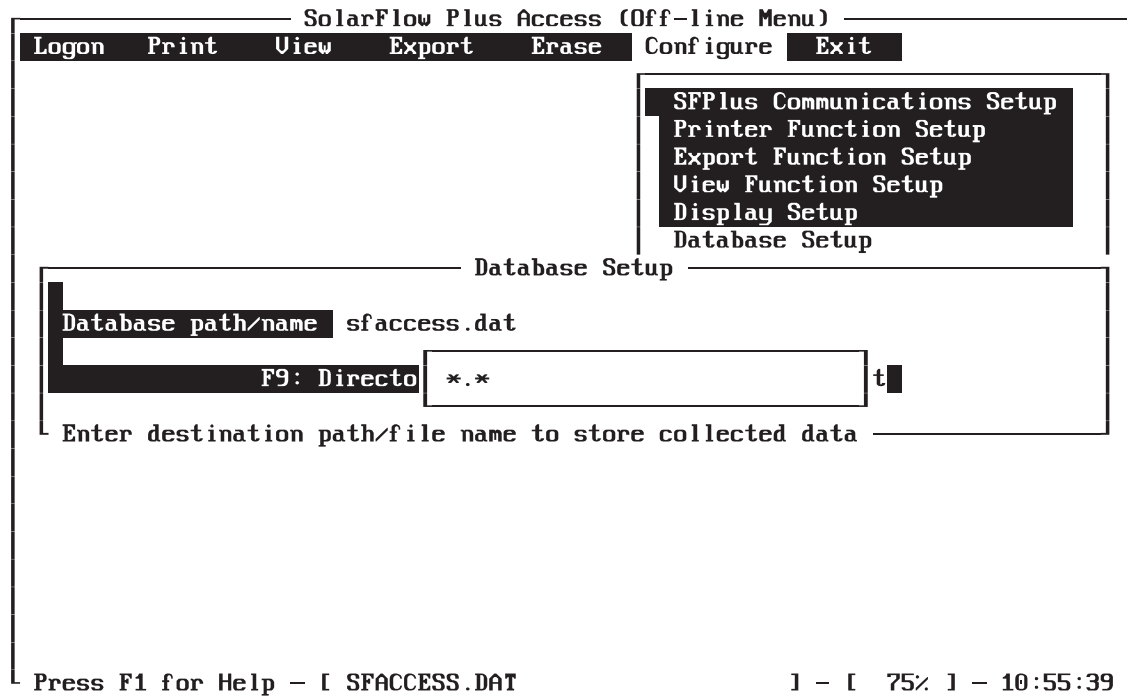
- either use the existing database path/file name, which has a default setting of "SFACCESS.DAT", or enter a new destination drive path/file name for storing collected data.

Once the database path/file name has been entered or selected from the pop-up window,

- press either the ENTER or F10 key to indicate that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

If the specific database path/file name is not known,

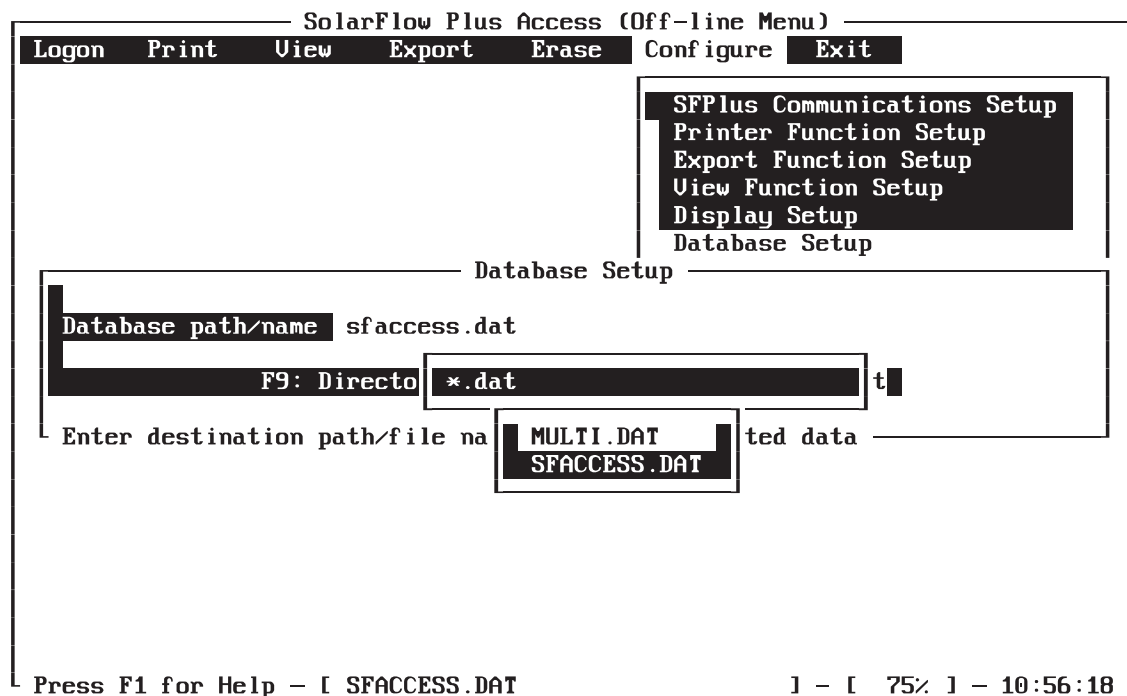
- press the F9 key to access a "Directory" pop-up window, which is shown in the following illustration.



SFACCESS

After the "Directory" pop-up window appears,

- enter the name of the database directory, which in this example, is *.dat, and
- press the ENTER key to access another pop-up window, as shown in the following illustration, that lists all the files currently available in the selected database directory.



Once the pop-up window listing all the files currently available in the selected database directory is accessed,

- use the UP and DOWN ARROW keys to scroll through and select from the list of available files,
- press either the ENTER or F10 key to indicate that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

The "Password Setup" Option

NOTE: If no passwords are necessary, the "Password Setup" option may be omitted, since the default setting automatically deactivates password installation and use.

The seventh of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Password Setup" option.

To select and highlight the "Password Setup" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the PASSWORD SETUP screen, which is shown in the following illustration.

```
SolarFlow Plus Access (Off-line Menu)
Logon  Print  View  Export  Erase  Configure  Exit

SFPlus Communications Setup

Password Setup

Passwords Active  No
Logon Option     User Entry
Password List

Function Levels:
Logon           9  Alarm           9
Collect         9  Print           9
Display         9  Review          9
Setup           9  Export          9
Calibration     9  Erase           9

F10: Done  ESC: Abort
Press SPACE to activate or deactivate passwords

Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 09:56:28
```

SFACCESS

After the PASSWORD SETUP screen has been accessed,

- use the UP and DOWN ARROW keys to select and highlight the "Passwords Active" option, which has options of No and Yes with the default being No, and use the SPACE BAR key to toggle and choose a setting,

To activate the desired password option for the SFACCESS program, select a "Yes" setting. After the password option has been activated, a "System Manager" password must be entered first in order to control overall access to the program. The last digit of this password must end in a zero (0) digit, since a user's access level, which may range from zero (0) to nine (9), is determined by the last digit of their password, and the zero (0) digit provides access to all function levels.

Password setup for SFACCESS is similar to the system in the DANIEL INDUSTRIES HAND HELD DATA TERMINAL. Therefore, for further details, refer to the most current revision of the DANIEL INDUSTRIES MODEL 2480 SOLARFLOW PLUS SYSTEM REFERENCE MANUAL, Daniel Part No. 3-9000-497.

NOTE: A copy of the first password (the "System Manager" password) entered should be kept in a secure location, and restricted to use by the program manager, supervisor or super user.

- use the UP and DOWN ARROW keys to select and highlight the "Logon Option" option, which has options of User Entry and Password with the default being User Entry, and use the SPACE BAR key to toggle and choose a setting,

If this option is set to Password, a user's password will be used as a default value when entering the security code for the Logon function. This option allows use of SFACCESS passwords as SOLARFLOW PLUS security codes.

NOTE: The last digit of a password is forced to zero (0) to ensure compatibility with the SOLARFLOW PLUS system.

- use the UP and DOWN ARROW keys to select and highlight the "Password List" option, which is blank and contains no default, and enter the desired password, or passwords,

Up to twenty passwords may be entered in the "Password List" option, and each of the passwords, which are separated by commas, may contain up to ten alphanumerical characters. Each password must end in a digit ranging from zero (0) to nine (9).

- use the UP and DOWN ARROW keys to select and highlight the list of function levels and their digital settings located under "Function Levels" option,

NOTE: To use a particular function, the user's access level must be less than, or equal to the function's access level.

SFACCESS

After the options settings have been selected,

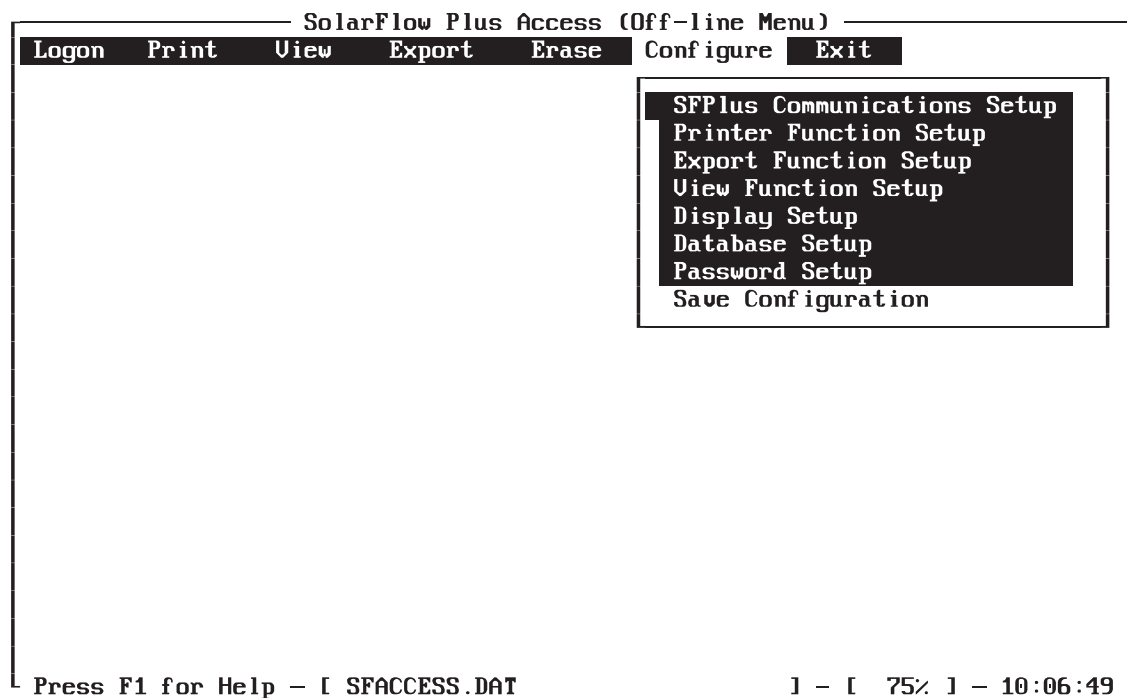
- press the F10 key to indicate both that the selection process is "Done" or finished, and to exit from the menu, or
- press the ESC (Escape) key to ABORT the selection process.

The "Save Configuration" Option

The last of the eight options available within the "Off-line" MAIN MENU "Configure" option is the "Save Configuration" option.

To select and highlight the "Save Configuration" option, which is shown in the following illustration,

- use the UP and DOWN ARROW keys.



At this point, installation and setup procedures are complete. Any changes or selections, which have been made, can now be saved by

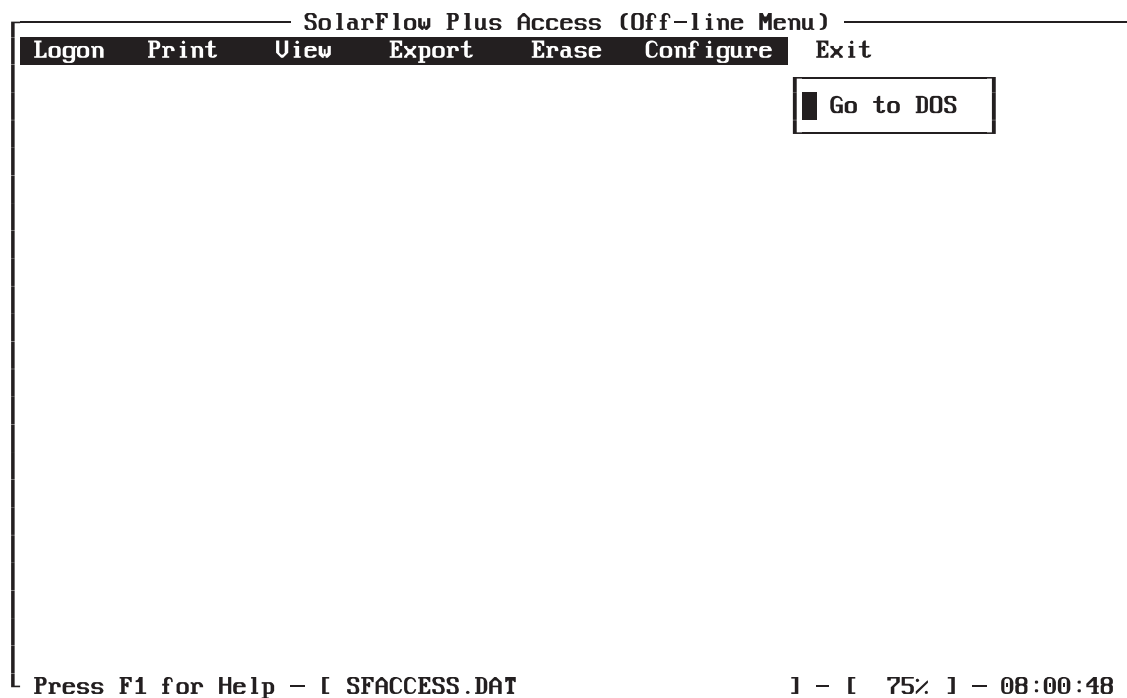
- pressing the ENTER key, or
- when exiting the program through the "Off-line" MAIN MENU's "Exit" option.

SFACCESS

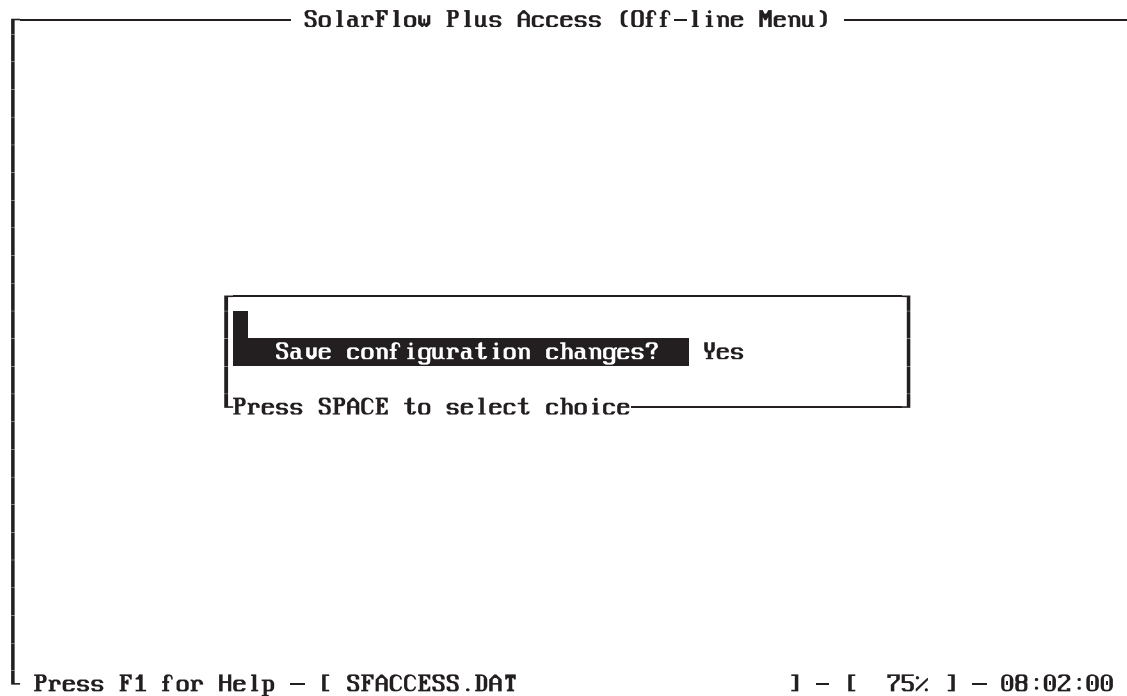
EXITING THE PROGRAM

To exit from the SFACCESS program, and return to DOS,

- use the RIGHT and LEFT ARROW keys to select and highlight the "Exit" option on the "Off-line" MAIN MENU, which is shown in the following illustration, and
- press the ENTER key.



If changes and selections have been made in the setup procedures, but not saved, a pop-up window, which is shown in the following illustration, will appear.



After the pop-up window appears,

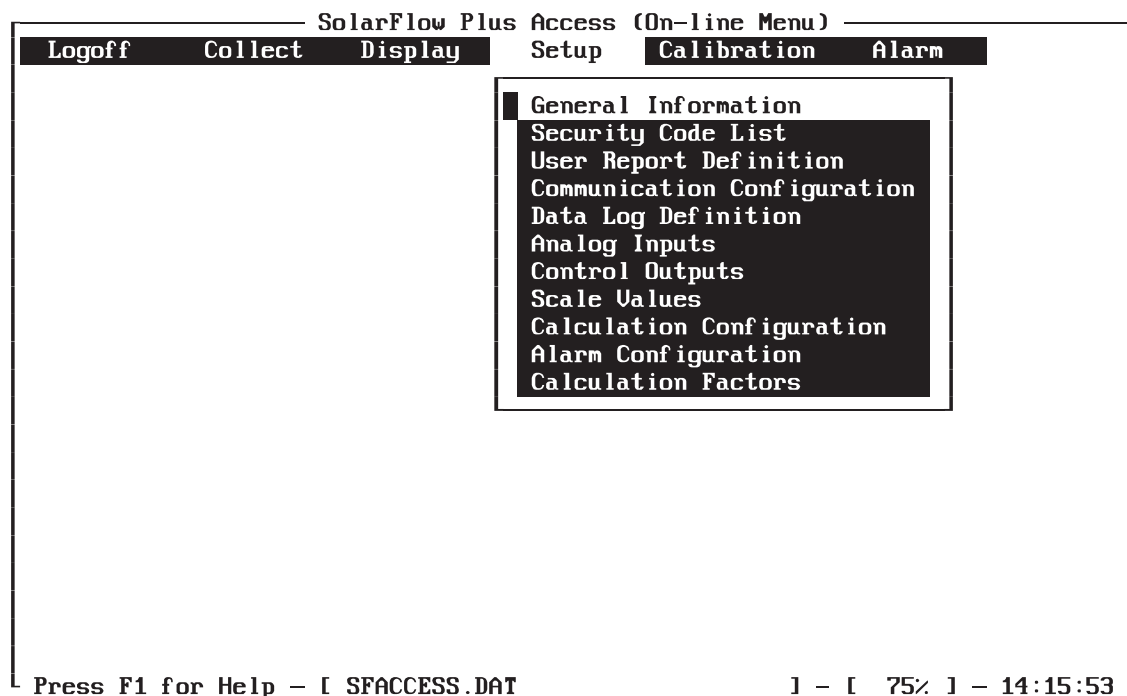
- use the SPACE BAR key to toggle and choose a "Yes" or "No" setting for the "Save Configuration Changes?" window option. The default is "Yes".

Once the parameter option has been selected,

- press the ENTER key to save, or not to save the setup procedure changes and selections, and to exit from the program to DOS.

SOLARFLOW PLUS SETUP PROCEDURES

The "Setup" option, which is shown in the following illustration, is the fourth of the six "On-line" MAIN MENU options. In this application, it contains eleven main sub-options, which include the "General Information" option, the "Security Code List" option, the "User Report Definition" option, the "Communication Configuration" option, the "Data Log Definition" option, the "Analog Inputs" option, the "Control Outputs" option, the "Scale Values" option, the "Calculation Configuration" option, the "Alarm Configuration" option, and the "Calculation Factors" option. The "Setup" option allows for the selection and setting of the various setup parameters and calculated values in the SOLARFLOW PLUS.



NOTE: The "Setup" option menu shown in the last illustration is for a specific application. This menu list, along with its associated sub-menus, will vary depending on the application installed in the SOLARFLOW PLUS.

SFACCESS

The "General Information" Option

The first of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "General Information" option.

At the "General Information" option,

- press the ENTER key to display the SETUP - GENERAL INFORMATION screen, which is shown in the following illustration. This screen allows the user to enter the values for the location and unit names, the location and unit ID numbers, the current date and time, and the calculation module for the SOLARFLOW PLUS currently logged on.

```

      SolarFlow Plus Access (On-line Menu)
-----
Logoff Collect Display Setup Calibration Alarm
                          General Information
                          Security Code List
                          User Report Definition
      Setup - General Information
-----
Location Name BLANK LOCATION      Unit Name BLANK UNIT
Location ID Number 0              Unit ID Number BLANK-ID
Date 08/19/92      Time 14:16:59
Calculation Module AGA3 DUAL STD
F10: Done      ESC: Abort
Enter new Location Name
Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 14:17:46
```

After the SETUP - GENERAL INFORMATION screen appears, the user should

- enter the value for the location name in the Location name field
- use the TAB key to cursor to, and enter the new unit name in the Unit name field
- use the TAB key to cursor to, and enter the new location ID number in the Location ID Number field
- use the TAB key to cursor to, and enter the new unit ID number in the Unit ID Number field
- use the TAB key to cursor to, the Date field and enter the current date in the MM/DD/YY format
- use the TAB key to cursor to the Time field, and enter the current time in the HH:MM:SS format
- use the TAB key to cursor to the Calculation Module field, and press the SPACE BAR to toggle and select the calculation module, which in the case, is the AGA3 DUAL STD (Standard)

After the values have been entered, the user should

- press either the ENTER or F10 key to complete the process, or
- press the ESC (Escape) key to abort the process.

SFACCESS

The "Security Code List" Option

The second of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Security Code List" option.

At the "Security Code List" option,

- press the ENTER key to display the SETUP - SECURITY CODE LIST screen, which is shown in the following illustration.

This screen allows the user to modify the necessary security code or codes for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)

Logoff Collect Display Setup Calibration Alarm

General Information

Setup - Security Code List

1. 120	11. 142
2. 101	12.
3. 111	13.
4. 121	14.
5. 131	15.
6. 141	16.
7. 102	17.
8. 112	18.
9. 122	19.
10. 132	20.

F2: Insert to List F3: Delete from List
F10: Done ESC: Abort

Enter new Security Code

Press F1 for Help - [SFACCESS.DAT] - [75%] - 14:20:18

After the SETUP - SECURITY CODE LIST screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through the list of twenty entry fields, and enter new security codes
- press the F2 key to insert a new code to the list, or
- press the F3 key to delete an existing code from the list
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "User Report Definition" Option

The third of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "User Report Definition" option.

At the "User Report Definition" option,

- press the ENTER key to display the SETUP - USER REPORT DEFINITION screen, which is shown in the following illustration.

This screen allows the user to define the user reports for the SOLARFLOW PLUS unit currently logged on.

```

      SolarFlow Plus Access (On-line Menu)
-----
Logoff Collect Display Setup Calibration Alarm
      Setup - User Report Definition
-----
Channel Description
1. Meter Pressure 1
2. Differential Pressure 1
3. Meter Temperature
4. Meter Pressure 2
5. Differential Pressure 2
6. Live Specific Gravity
7. Hourly Flow Rate 1
8. Total Accumulated Volume 1
9. Hourly Flow Rate 2
10. Total Accumulated Volume 2
11. Today's Volume
12. Yesterday's Volume
13.
14.
15.
F2: Insert F3: Delete F10: Done ESC: Abort
-----
Press F1 for Help - [ SFACCESS.DAT ] - [ 75% ] - 14:21:29

```

After the SETUP - USER REPORT DEFINITION screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through the list of fifteen entry fields, and enter new channel descriptions
- press the F2 key to insert a new channel description to the list

When the F2 key is pressed, all channel descriptions below and including including the cursor are moved to the next position. If the list is full, the last item in the list is lost. A channel description selection list will appear. Use the UP and DOWN ARROW keys, or the PAGE UP and PAGE DOWN keys to the new, desired channel description. When the new description is located, press the ENTER key. To abort the process, press the ESC (Escape) key. However, if the ESC (Escape) key is pressed at this time, a blank item exists in the channel description list of the SETUP screen. When the ENTER key is pressed, the channel description is place in the desired item location within the channel description list of the SETUP screen.

- press the F3 key to delete an existing channel description from the list

When the F3 key is pressed, the desired channel description is removed from the list and all items below the cursor are moved up an item row in order to fill the gap caused by the delete request.

- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "Communication Configuration" Option

The fourth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Communication Configuration" option.

At the "Communication Configuration" option,

- press the ENTER key to display the SETUP - COMMUNICATION CONFIGURATION screen, which is shown in the following illustration.

This screen allows the user to select and enter or modify the protocol communications and baud rates, and the RTS delay value for the SOLARFLOW PLUS unit currently logged on.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a horizontal bar contains the menu options: Logoff, Collect, Display, Setup, Calibration, and Alarm. The 'Setup' option is selected, and a sub-menu is displayed with the following options: General Information, Security Code List, User Report Definition, Communication Configuration, and Data Log Definition. The 'Communication Configuration' option is selected, leading to the 'Setup - Communication Configuration' screen. This screen shows the 'Protocol Communication Rate' set to 300 Baud and the 'RTS Delay' set to 0 1/100th Seconds. At the bottom of this screen, it says 'F10: Done' and 'ESC: Abort'. Below the sub-menu, it says 'SPACE to select new Communication Rate'. At the very bottom of the screen, it says 'Press F1 for Help - I SFACCESS.DAT' and 'I - I 75% I - 14:22:00'.

```
SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm

General Information
Security Code List
User Report Definition
Communication Configuration
Data Log Definition

Setup - Communication Configuration
Protocol Communication Rate 300 Baud
RTS Delay 0 1/100th Seconds
F10: Done ESC: Abort
SPACE to select new Communication Rate

Press F1 for Help - I SFACCESS.DAT I - I 75% I - 14:22:00
```

After the SETUP - COMMUNICATION CONFIGURATION screen appears, the user should

- press the SPACE BAR to toggle and select a baud rate from the rates provided in the Protocol Communication Rate field

Baud rates include 50, 75, 110, 150, 300, 600, 1200, 2400, 4800, and 9600.

- use the TAB key to cursor to and enter a 0 to 99 value in the RTS Delay field
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "Data Log Definition" Option

The fifth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Data Log Definition" option.

At the "Data Log Definition" option,

- press the ENTER key to display the SETUP - DATA LOG DEFINITION screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
      General Information
      Setup - Data Log Definition
Contract Hour 7 (0 - 23) Data Logging Interval 1 Hour
Channel Description      Type Len Dec Ex. Format
1. Meter Pressure 1      AUG  6  0  XXXXXX
2. Differential Pressure 1  AUG  4  1  XXX.X
3. Meter Temperature      AUG  4  0  XXXX
4. Meter Pressure 2      AUG  6  0  XXXXXX
5. Differential Pressure 2  AUG  4  1  XXX.X
6. Logged Accumulated Volume 1  SSZ  6  1  XXXXX.X
7. Logged Accumulated Volume 2  SSZ  6  1  XXXXX.X
8. Today's Volume        SS   8  1  XXXXXX.X
9. Yesterday's Volume      SS   8  1  XXXXXX.X
10.
      F10: Done  ESC: Abort
Enter new Contract Hour
Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 14:22:26
```

This screen allows the user to define the contract hour, the data logging interval, and the channels that belong in the data log for the SOLARFLOW PLUS unit currently logged on.

This screen is divided into three sections, which include

- the Contract Hour
- the Data Logging Interval
- the Data Log Definition

The Contract Hour section consists of a single numeric entry. This field may contain any value within the range of 0 to 23, where a value of 0 indicates midnight and a value of 23 indicates 11:00 p.m.. To change the current Contract Hour value, locate the cursor to the Contract Hour field using any of the arrow keys, and enter the new value.

The Data Logging Interval section consists of a single selection entry. This field may be set to None, 5 Minute, 15 Minute, 30 Minute, 1 Hour, 4 Hour, and 24 Hour. To change the current Data Logging Interval setting, locate the cursor to the Data Logging Interval field using any of the arrow keys, and press the SPACE BAR until the desired setting appears in the field.

The Data Log Definition section consists the Channel Description, the Logging Type (Type), the Field Length (Len), the Decimal Places (Dec), and the Example Format (Ex. Format) fields. The Channel Description field contains the descriptive name for the channel being logged. The Logging Type field contains the logging method used when the data is logged. This field may be set to Averaged (AVG), Snapshot (SS), or Snapshot and Zero (SSZ). The Field Length field contains the number of significant digits of the data to place in the log. This field may be set to 2, 4, 6, or 8. The Decimal Places field contains the number of the significant digits that must appear to the right of the decimal place of the data to be placed in the log. This

value must not be greater than the value specified in the Field Length field. The Example Format field is a protected field and can not be directly modified by the user. This field can be used as a reference and shows the resulting format of the data once it has been placed in the data log. This field is automatically updated by SFACCESS any time a change is made to either the Field Length value or the Decimal Places value.

To add a new channel to the current data log definition, use the UP and DOWN ARROW keys to locate the cursor to the Channel Description field where the new channel definition is to be placed and press the F2 key. When the F2 key is pressed, all channel definitions below and including the cursor are shifted one location down. A new window appears containing a list of all available channel descriptions defined for the specific application. Use the UP and DOWN ARROW keys and the PAGE UP and PAGE DOWN keys to locate the cursor to the desired channel description, and press the ENTER key. The ESC (Escape) key will abort the insert request, however a blank slot will exist in the data log definition section. When the ENTER key is pressed the desired channel description is placed in the indicated location within the data log definition. At this time, the Logging Type field is defaulted to Averaged (AVG), the Field Length value is defaulted to a value of 6, and the Decimal Places value is defaulted to a value of 0. This leaves the Example Format field showing a value of XXXXXX.

To modify the Logging Type field for a specific channel, locate the cursor to the desired Type field using the UP and DOWN ARROW keys. Press the SPACE BAR until the desired logging type method appears in the field. The following is a list of values and their descriptions that may appear in this field

- AVG (Averaged)
- SSZ (Snapshot and Zero)
- SS (Snapshot)

To modify the Field Length field for a specific channel, locate the cursor to the desired Len field using the UP and DOWN ARROW keys. Press the SPACE BAR until the desired field length appears in the field. This field may be set to 2, 4, 6, or 8.

To modify the Decimal Places field for a specific channel, locate the cursor to the desired Dec field using the UP and DOWN ARROW keys, and enter the desired value. Note that this value may not be greater than the value specified in the Field Length field for this specific channel.

To completely remove a channel from the data log definition, locate the cursor to the desired Channel Description field using the UP and DOWN ARROW keys and press the F3 key. The data log information for that channel is removed and all subsequent channels are moved up to fill in the empty slot.



WARNING: Use extreme caution when performing this function. The user is not prompted to confirm the delete request; the request is immediately performed.

The user may abort any changes made to the DATA LOG DEFINITION screen at any time by pressing the ESC (Escape) key. When the ESC (Escape) key is pressed, all changes are discarded and the is removed from the display.

To save any changes made on the Data Log Definition screen to the SOLARFLOW PLUS press the F10 key. Only those changes that were made are sent to the unit. When the F10 key is pressed, the DATA LOG DEFINITION screen is removed from the display, and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working ..." window is removed from the display, and control is passed back to the MAIN MENU.

SFACCESS

After the SETUP - DATA LOG DEFINITION screen appears, the user should

- enter a value for the contract hour in the Contract Hour field

Valid values are from 0 (Midnight) to 23 (11:00 pm).

- use the RIGHT and LEFT ARROW keys to cursor to the Data Logging Interval field, and the SPACE BAR to toggle and select a data logging interval

Supported data logging intervals include None, 5 minutes, 15 minutes, 30 minutes, 1 hour, 4 hours, and 24 hours.

- use the UP and DOWN ARROW keys to cursor through the list of ten entry fields, and enter new channel descriptions
- press the F2 key to insert a new channel description to the list, or
- press the F3 key to delete an existing channel description from the list
- use the RIGHT and LEFT ARROW and/or UP and DOWN ARROW keys to cursor to the Type field for each Channel Description field and use the SPACE BAR to toggle and select either an AVG (averaged), SS (snapshot) or SSZ (snapshot and zero) value
- use the RIGHT and LEFT ARROW and/or UP and DOWN ARROW keys to cursor to the Len (Length) field for each Channel Description field and use the SPACE BAR to toggle and select a field length value
- use the RIGHT and LEFT ARROW and/or UP and DOWN ARROW keys to cursor to the Dec (Decimal) field for each Channel Description field and enter a decimal place value

- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "Analog Inputs" Option

The sixth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Analog Inputs" option.

At the "Analog Inputs" option,

- press the ENTER key to display the SETUP - ANALOG INPUTS screen, which is shown in the following illustration.

SolarFlow Plus Access (On-line Menu)			
Logoff	Collect	Display	Setup
		Calibration	Alarm
General Information			
Security Code List			
Setup - Analog Inputs			
Channel Description	Value	Units	Status
Meter Pressure 1	1575	Psi Gauge	Live
Meter Pressure 2	1575	Psi Gauge	Live
Meter Temperature	158	Degrees F	Live
Differential Pressure 1	117.6	Inches Water	Live
Differential Pressure 2	117.6	Inches Water	Live
Live Specific Gravity	0.757		Live
Analog Input - Channel 26			Live
F10: Done ESC: Quit			
Enter desired value			
Press F1 for Help - [SFACCESS.DAT			
] - [75%] - 14:23:35			

The SETUP - ANALOG INPUTS screen provides the user the ability to modify the input status of the analog inputs for the SOLARFLOW PLUS unit currently logged on. The input status of analog inputs may either be Fixed or Live. If the input status of an analog input is set to Live, then the live value will be used in the calculations. If the input status of an analog input is set to Fixed, then the user may supply a desired value to be used in the calculations, which overrides the live input value.

To change the input status of an analog input, locate the cursor at the Status field of the desired analog input using the ARROW keys. Press the SPACE BAR until the desired status appears in the field. This field may be set to either 'Fixed' or 'Live'.

To modify the value of a Fixed analog input, locate the cursor to the Value field of the desired analog input and enter the new value.

The user may abort or cancel any changes made by pressing the ESC (Escape) key. When this key is pressed, the SETUP - ANALOG INPUTS screen is removed from the display and control is passed back to the MAIN MENU.

To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP -ANALOG INPUTS screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working ..." window is removed from the display, and control is passed back to the MAIN MENU.

SFACCESS

After the SETUP - ANALOG INPUTS screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through and enter values for the channel description entries
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

The "Control Outputs" Option

The seventh of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Control Outputs" option.

At the "Control Outputs" option,

- press the ENTER key to display the SETUP - CONTROL OUTPUTS screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
      General Information
      Setup - Control Outputs
Channel Description      Value
Sampler Output 1        Off
Sampler Output 2        Off
Control Output - Channel 7  Off
Control Output - Channel 8  Off
Control Output - Channel 11 Off
Control Output - Channel 12 Off
Control Output - Channel 13 Off
Control Output - Channel 14 Off
Control Output - Channel 15 Off
      F10: Done  ESC: Quit
Press SPACE to select desired value
Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 14:24:05
```

This screen provides the ability to change the value of a control output for the SOLARFLOW PLUS unit currently logged on. Output values may be either 'On' or 'Off'.

To change the value of a control output, locate the cursor to the Value field of the desired channel using the arrow keys. Press the SPACE BAR until the desired output value state appears in the field.

The user may abort or cancel any changes made by pressing the ESC (Escape) key. When this key is pressed, the SETUP - CONTROL OUTPUTS screen is removed from the display and control is passed back to the MAIN MENU.

To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP -CONTROL OUTPUTS screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working .." window is removed from the display, and control is passed back to the MAIN MENU.

After the SETUP - CONTROL OUTPUTS screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through the Value fields for each of the channel description entries
- press the SPACE BAR to toggle and select ON and OFF values for the control outputs
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "Scale Values" Option

The eighth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Scale Values" option.

At the "Scale Values" option,

- press the ENTER key to display the SETUP - SCALE VALUES screen, which is shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

Logoff Collect Display Setup Calibration Alarm

General Information

Setup - Scale Values

Channel Description	Value	Units
Meter Pressure 1 / Low	0	Psi Gauge
Meter Pressure 1 / High	1500	Psi Gauge
Meter Pressure 2 / Low	0	Psi Gauge
Meter Pressure 2 / High	1500	Psi Gauge
Meter Temperature / Low	0	Degress F
Meter Temperature / High	150	Degrees F
Differential Pressure 1 / Low	0	Inches Water

F10: Done ESC: Quit

Enter desired value

Press F1 for Help - [SFACCESS.DAT 1 - [75% 1 - 14:25:22

This screen provides the ability to change the scale value of an analog channel for the SOLARFLOW PLUS unit currently logged on.

To change the scale value of an analog channel, locate the cursor to the Value field of the desired channel using the arrow keys, and enter the new value.

The user may abort or cancel any changes made by pressing the Escape (ESC) key. When this key is pressed, the SETUP - SCALE VALUES screen is removed from the display and control is passed back to the MAIN MENU.

To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP -SCALE VALUES screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working .." window is removed from the display, and control is passed back to the MAIN MENU.

SFACCESS

After the SETUP - SCALE VALUES screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through and enter values for each of the channel description entries
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

The "Calculation Configuration" Option

The ninth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Calculation Configuration" option.

At the "Calculation Configuration" option,

- press the ENTER key to display the SETUP - CALCULATION CONFIGURATION screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
  Logoff Collect Display Setup Calibration Alarm

      General Information
  Setup - Calculation Configuration

  Channel Description      Value      Units
  Pipe Diameter 1         8.071      Inches
  Pipe Diameter 2         8.071      Inches
  Orifice Diameter 1      4.000      Inches
  Orifice Diameter 2      4.000      Inches
  Low Flow Cutoff Limit   2.00      % of Full Scale
  Atmospheric Pressure    14.73      Psi Absolute
  Pressure Base           14.73      Psi Absolute
  Temperature Base        60         Degrees F
  Orifice Material        Steel
  Supercompressibility Method NX-19 Standard

      F10: Done  ESC: Quit
  Enter desired value

  Press F1 for Help - [ SFACCESS.DAT          ] - [ 75% ] - 14:26:16
  
```

This screen provides the ability to modify a calculation value for the SOLARFLOW PLUS unit currently logged on.

To modify a calculation value, locate the cursor to the Value field of the desired channel using the arrow keys. The Value field has one of two data entry formats, which are numeric or selection. To modify a numeric field simply, enter the desired value. To modify a selection field, press the SPACE BAR until the desired value appears in the field.

The user may abort or cancel any changes made by pressing the Escape (ESC) key. When this key is pressed, the SETUP - CALCULATION CONFIGURATION screen is removed from the display and control is passed back to the MAIN MENU.

To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP - CALCULATION CONFIGURATION screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working ..." window is removed from the display, and control is passed back to the MAIN MENU.

After the SETUP - CALCULATION CONFIGURATION screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through and enter values for each of the channel description entries
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

SFACCESS

The "Alarm Configuration" Option

The tenth of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Alarm Configuration" option.

At the "Alarm Configuration" option,

- press the ENTER key to display the SETUP - ALARM CONFIGURATION screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
      General Information
      Setup - Alarm Configuration
Alarm Description      Value      Units
-----
Battery Low           - Enable    Enable
                    - Setpoint    10.8      Volts
-----
Meter Pressure 1      - Enable    Enable
                    - Low Setpoint 0          x High Scale
                    - High Setpoint 1.01       x High Scale
-----
Meter Pressure 2      - Enable    Enable
                    - Low Setpoint 0          x High Scale
                    - High Setpoint 1.01       x High Scale
-----
                        F10: Done   ESC: Quit
Press SPACE to select desired value
Press F1 for Help - [ SFACCESS.DAT ] - [ 75% ] - 14:26:55
```

This screen provides the ability to configure and enter setpoint values for alarms defined on the SOLARFLOW PLUS unit currently logged on. Alarms may be enabled or disabled. Optional setpoint values may be divided into low and high values when necessary.

To change the current state of an alarm, locate the cursor to the desired alarm '- Enable' record using the arrow keys, and press the SPACE BAR until the desired state appears in the field. This field may be set to 'Enable' or 'Disable'. An enabled alarm is available to the alarm monitoring system on the SOLARFLOW PLUS unit and will generate appropriate alarm events when the alarm conditions exist. A disabled alarm is not available to the alarm monitoring system. In this case, no alarm events are generated when alarm conditions exist.

To change a setpoint value for a specific alarm, locate the cursor to the desired alarm '- Setpoint', '- Low Setpoint', or '- High Setpoint' record (as appropriate) using the ARROW keys, and enter the desired value.

The user may abort or cancel any changes made by pressing the Escape (ESC) key. When this key is pressed, the SETUP - ALARM CONFIGURATION screen is removed from the display and control is passed back to the MAIN MENU.

To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP -ALARM CONFIGURATION screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working ..." window is removed from the display, and control is passed back to the MAIN MENU.

SFACCESS

After the SETUP - ALARM CONFIGURATION screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through the Value fields for each of the alarm description entries
- press the SPACE BAR to toggle and enable or disable the alarm for each alarm descriptions
- enter setpoint values as indicated for each of the alarm descriptions
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

The "Calculation Factors" Option

The last of the eleven options available within the "On-line" MAIN MENU "Setup" option is the "Calculation Factors" option.

At the "Calculation Factors" option,

- press the ENTER key to display the SETUP - CALCULATION FACTORS screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
  Logoff Collect Display Setup Calibration Alarm
      General Information
  Setup - Calculation Factors
  Channel Description      Value      Units      Status
  Basic Orifice Factor 1   3362.9   (Fb 1)     Live
  Basic Orifice Factor 2   3362.9   (Fb 2)     Live
  Pressure Base Factor     1.0000   (Fpb)      Live
  Temperature Base Factor  1.0000   (Ftb)      Live
  Gravity Factor           1.1496   (Fg)       Live
  Supercompressibility Factor 1  1.1084   (Fpv 1)    Live
  Supercompressibility Factor 2  1.1084   (Fpv 2)    Live
  Pressure Adjust Factor    0.000
  Temperature Adjust Factor  0.000
  Reynolds Number Factor 1   1.0001   (Fr 1)     Live
  F10: Done  ESC: Quit
  Enter desired value
  Press F1 for Help - [ SFACCESS.DAT ] - [ 75% ] - 14:27:41
  
```

This screen provides the user the ability to modify the input status of the calculation factors for the SOLARFLOW PLUS unit currently logged on. The input status of the calculation factors may either be Fixed or Live. If the input status of a calculation factor is set to Live, then the calculated value will be used in the calculations. If the input status of a calculation factor is set to Fixed, then the user may supply a desired value to be used in the calculations, thus over-riding the true calculated value.

To change the input status of a calculation factor, locate the cursor to the Status field of the desired factor using the ARROW keys. Press the SPACE BAR until the desired status appears in the field. This field may be set to either 'Fixed' or 'Live'.

To modify the value of a Fixed calculation factor, locate the cursor to the Value field of the desired factor and enter the new value.

The user may abort or cancel any changes made by pressing the Escape (ESC) key. When this key is pressed, the SETUP - CALCULATION FACTORS screen is removed from the display and control is passed back to the MAIN MENU.

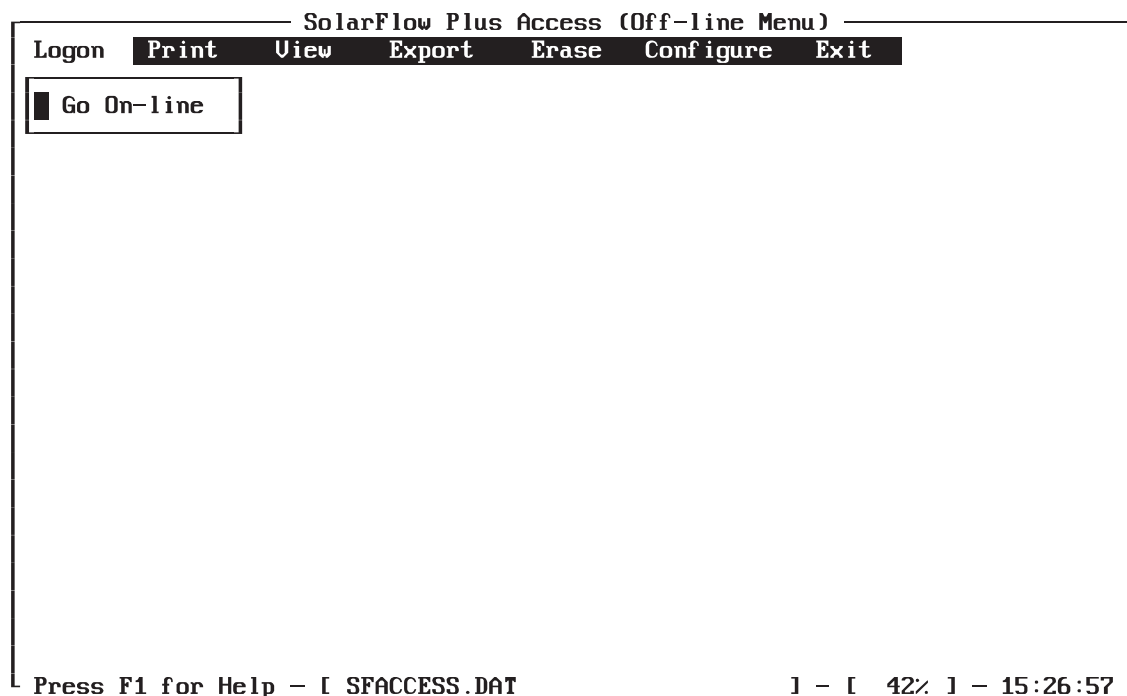
To save any changes made on this screen to the SOLARFLOW PLUS, press the F10 key. Note that only those changes that were made are sent to the unit. When the F10 key is pressed, the SETUP - CALCULATION FACTORS screen is removed from the display and a "Working ..." window appears while the changes are being sent. When the process is completed, the "Working ..." window is removed from the display, and control is passed back to the MAIN MENU.

After the SETUP - CALCULATION FACTORS screen appears, the user should

- use the UP and DOWN ARROW keys to cursor through and enter values for each of the channel description entries
- press the F10 key to complete the process, or
- press the ESC key to abort the process.

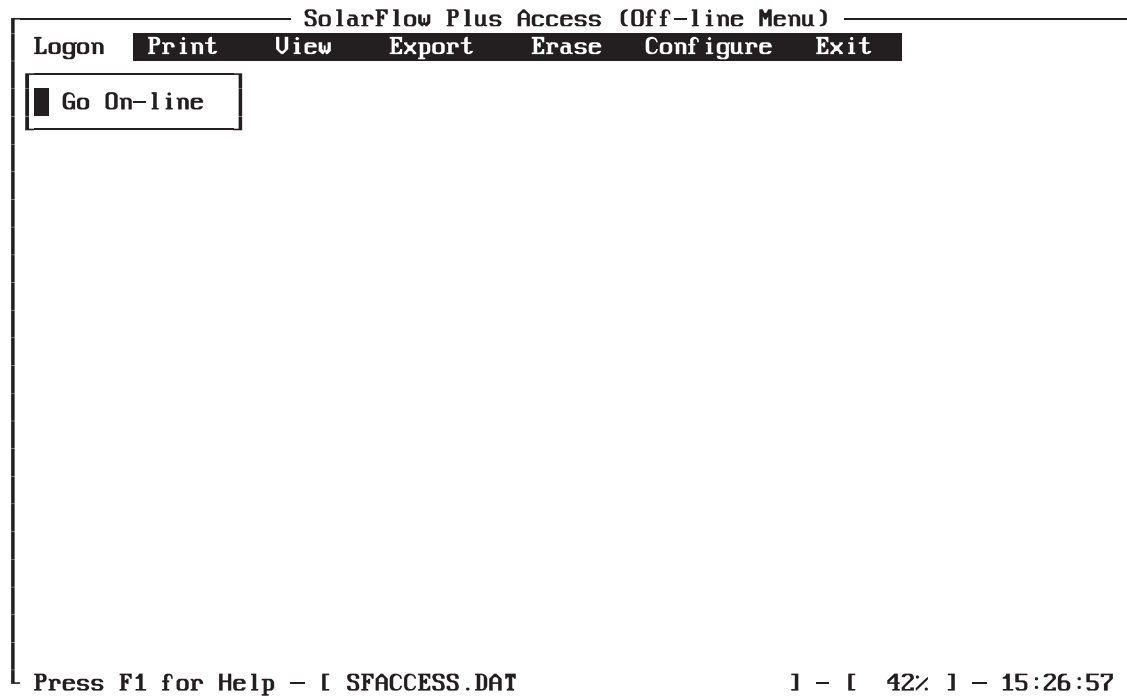
PC MAIN MENU CONTENTS

As indicated in the following illustration, there are seven menu options in the "Off-line" MAIN MENU (for the PC), which include the Logon, Print, View, Export, Erase, Configure and Exit options. Since all seven options contain at least some form of sub-menu, sub-menu option, or selection screen, most will be segregated, examined and explained in separate sub-sections of this section (Section 3). However, since the "Configure" option has already been fully explained in Section 2, no further examination or discussion is necessary.



THE "LOGON" OPTION

The "Logon" option, which is shown in the following illustration, is the first of the seven "Off-line" MAIN MENU options. It contains one main sub-option, which is the "Go On-line" option, that allows the user to logon to the SOLARFLOW PLUS computer.



SFACCESS

The "Go On-line" Option

At the "Go On-line" option,

- press the ENTER key to display the LOGON screen, which is shown in the following illustration.

```

      SolarFlow Plus Access (Off-line Menu)
-----
Logon  Print  View  Export  Erase  Configure  Exit
-----
[ Go On-line ]

      Logon
-----
SolarFlow Plus security code

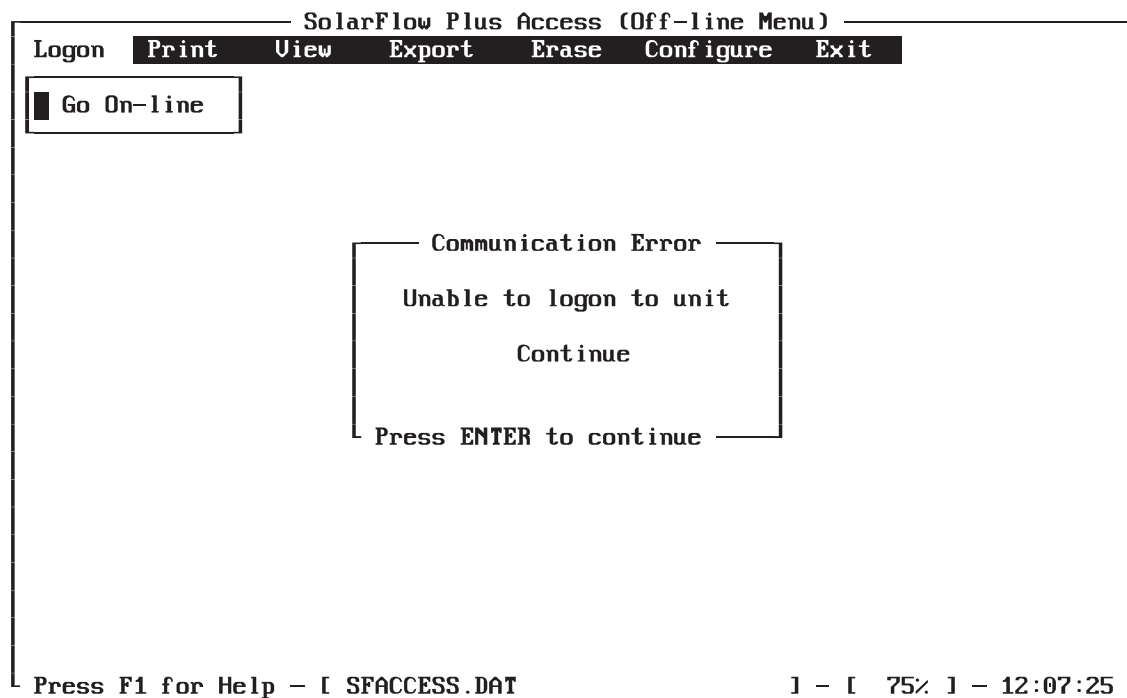
Press F1 for Help - [ SFACCESS.DAT ] - [ 42% ] - 15:28:00

```

After the "Logon" screen has been accessed,

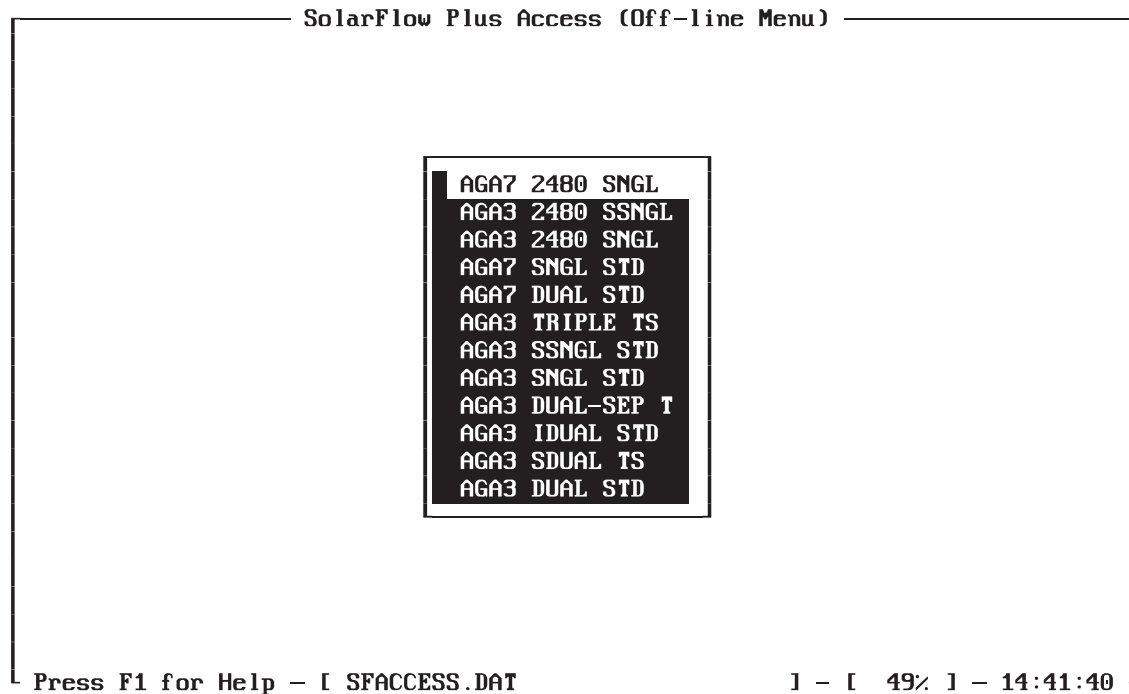
- enter an appropriate SOLARFLOW PLUS security code and
- press the ENTER key.

If an inappropriate security code is entered, access to the SOLARFLOW PLUS will be denied, and an error message will appear, as shown in the following illustration.



SFACCESS

After an appropriate SOLARFLOW PLUS security code is entered and accepted, a pop-up window, which is shown in the following illustration, will be displayed. This window lists the various applications available for use in the SOLARFLOW PLUS.



NOTE: In a newly installed SOLARFLOW PLUS computer, the "calculation module" or application name will be asked for. However, in a working application, the "calculation module" or application name will not be asked for, because the SOLARFLOW PLUS furnishes the correct parameters.

After the pop-up window appears,

- use the UP and DOWN ARROW keys to select the appropriate application from the application list, and
- press the ENTER key.

Each application is listed and defined in more detail in the "Application File Designator" table, which is shown in the following illustration(s).

NOTE: Each of the File Name Descriptors has two files on the SFACCESS distribution diskette designated as:
NAME.CFG - The configuration file for the application
NAME.MNU - The menu option list for the application
In the event that disk storage space is at a premium, the user may delete the application files, which are not applicable to the system.

SFACCESS

The standard application selections for the SOLARFLOW PLUS, which the SFACCESS program supports are

APPLICATION FILE DESIGNATOR	DESCRIPTION
AGA3 SNGL STD 70_3S	Model 2460 and 2470 single meter run application.
AGA3 DUAL-SEP T 70_3D_ST	Model 2460 and 2470 AGA3 dual meter run application with separate temperature inputs for each run.
AGA3 IDUAL STD 70_3D_IR	Model 2460 and 2470 AGA3 dual meter run application with independent calculation modules for each run.
AGA3 SDUAL TS 70_3DS	Model 2460 and 2470 AGA3 dual meter run application with stacked DP's on run two, plus tube switching capability.
AGA3 DUAL STD 70_3D	Model 2460 and 2470 dual meter run application.
AGA7 2480 SNGL 80_7S	Model 2480 single meter run AGA7 application.
AGA3 2480 SSNGL 80_3SS	Model 2480 single meter run AGA7 application with stacked DP inputs.
AGA3 2480 SNGL 80_3S	Model 2480 single meter run AGA3 application.
AGA7 SNGL STD 70_7S	Model 2460 and 2470 single meter run AGA7 application.

APPLICATIONS TABLE (continued)

APPLICATION FILE DESIGNATOR	DESCRIPTION
AGA7 DUAL STD 70_7D	Model 2460 and 2470 dual meter run AGA7 application.
AGA3 TRIPLE TS 70_3T	Model 2460 and 2470 triple meter run AGA3 application with tube switching capability.
AGA3 SSNGL STD 70_3SS	Model 2460 and 2470 single meter run AGA3 application with stacked DP inputs.

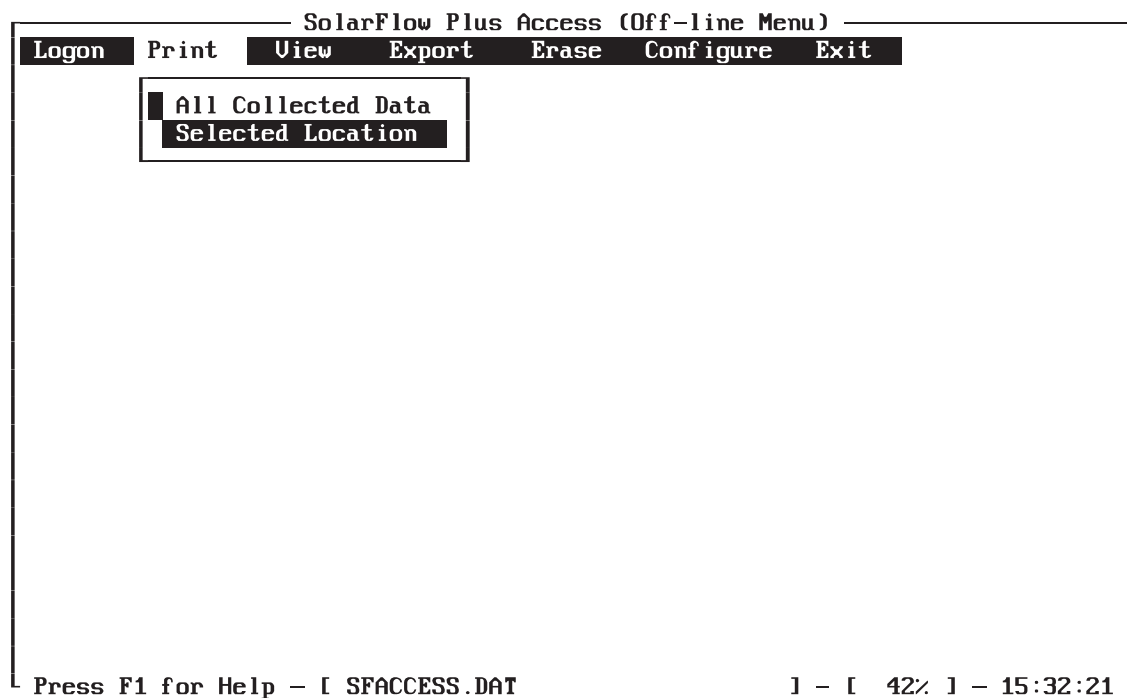
After the necessary security code and the appropriate application file name have been entered, the "On-line" MAIN MENU will appear, and the user may begin operation in the SOLARFLOW PLUS computer environment. The "On-line" MAIN MENU and its operation will be addressed in Section 4, entitled SOLARFLOW PLUS MAIN MENU CONTENTS.

SFACCESS

THE "PRINT" OPTION

The "Print" option, which is shown in the following illustration, is the second of the seven "Off-line" MAIN MENU options. It contains two main sub-options, which include "All Collected Data" and "Selected Locations", and allows for the printing of all or selected data collected from the SOLARFLOW PLUS computer.

NOTE: Before using the "Print" option, the user must configure the SFACCESS program to print the collected data to a specific printer or file within the program by using the print options under the "Off-line" MAIN MENU's "Configure" option. (Refer to Section 2 of this manual.)



The "All Collected Data" Option

The first of the two options available within the "Off-line" MAIN MENU "Print" option is the "All Collected Data" option.

At the "All Collected Data" option,

- press the ENTER key to display a PRINT OPTIONS screen, as shown in the following illustration.

```

      SolarFlow Plus Access (Off-line Menu)
-----
Logon  Print  View  Export  Erase  Configure  Exit
-----
Print Options
-----
All
Sele
-----
Report Types
Data Log Reports
Miscellaneous Data Reports
Event Log Reports
Calibration Reports
Alarm Event Log Reports
Parameter Change Event Log Reports
-----
Data Log Options
Details
Hourly Totals
Daily Totals
Range Totals
-----
Beginning Date/Time  /  /  :
Ending Date/Time    /  /  :
-----
Enter to Proceed  ESC to Abort
Press SPACE to toggle select
-----
Press F1 for Help - [ SFACCESS.DAT                      ] - [ 42% ] - 15:33:18
```

SFACCESS

After the PRINT OPTIONS screen for "All" locations has been accessed,

- use the UP and DOWN ARROW keys to highlight, and the SPACE BAR to select one or more of the Report Types to be printed,

The Report Types include

- Data Log Reports
 - Miscellaneous Data Reports
 - Event Log Reports
 - Calibration Reports
 - Alarm Event Log Reports
 - Parameter Change Event Log Reports
- use the UP and DOWN ARROW keys to highlight, and the SPACE BAR to select one or more of the Data Log Options, which apply to the printing of data log records only,

These options include

- Details, which is a detailed report that is printed with no totals
- Hourly Totals, which is a detail report that is printed with hourly totals
- Daily Totals, which is a detail report that is printed with daily totals

- Range Totals, which is a detail report that is printed with range totals
- use the UP and DOWN ARROW keys to move to the Beginning Date/Time field, and enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when to begin printing in the period of time covered by the collected data,

If no beginning date or time is entered, then printing will begin at the first (or oldest) record in the database.

- use the UP and DOWN ARROW keys to move to the Ending Date/Time field, and enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when to end printing in the period of time covered by the collected data,

If no ending date or time is entered, then reports will print up through the last (or newest) records in the database.

NOTE: If no beginning or ending date or time is entered for the collected data, then all the collected data for that location will be printed.

After the PRINT OPTION settings have been selected,

- press the ENTER key to proceed with the printing process, or
- press the ESC (Escape) key to ABORT the process.

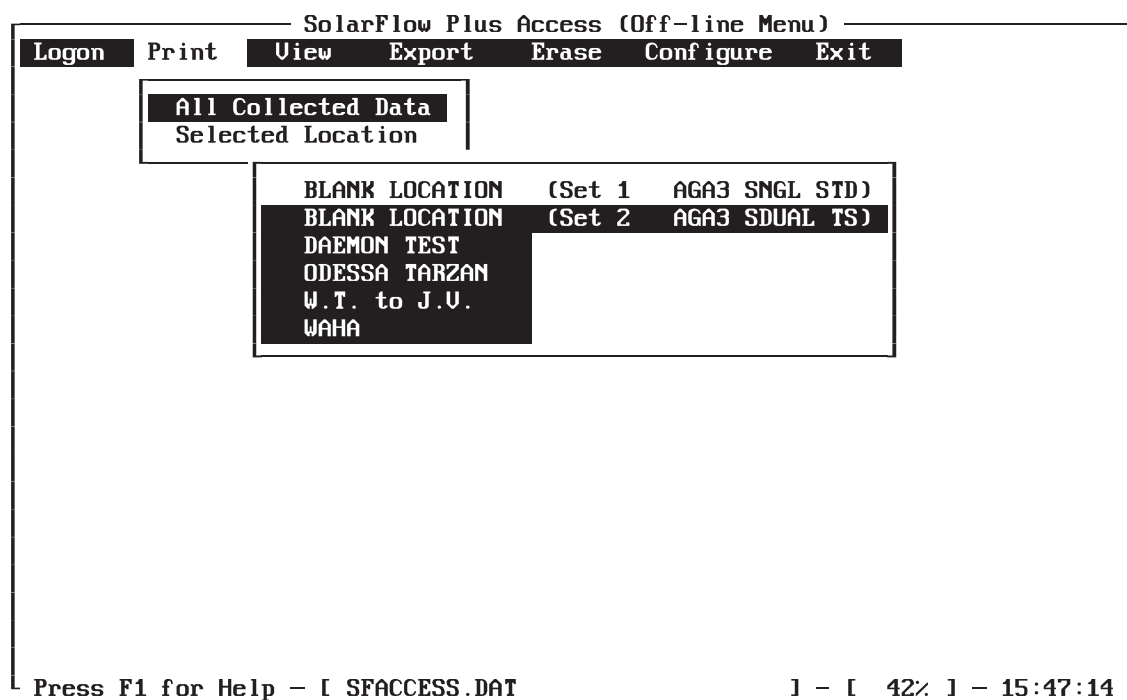
SFACCESS

The "Selected Location" Option

The second of the two options available within the "Off-line" MAIN MENU "Print" option is the "Selected Location" option.

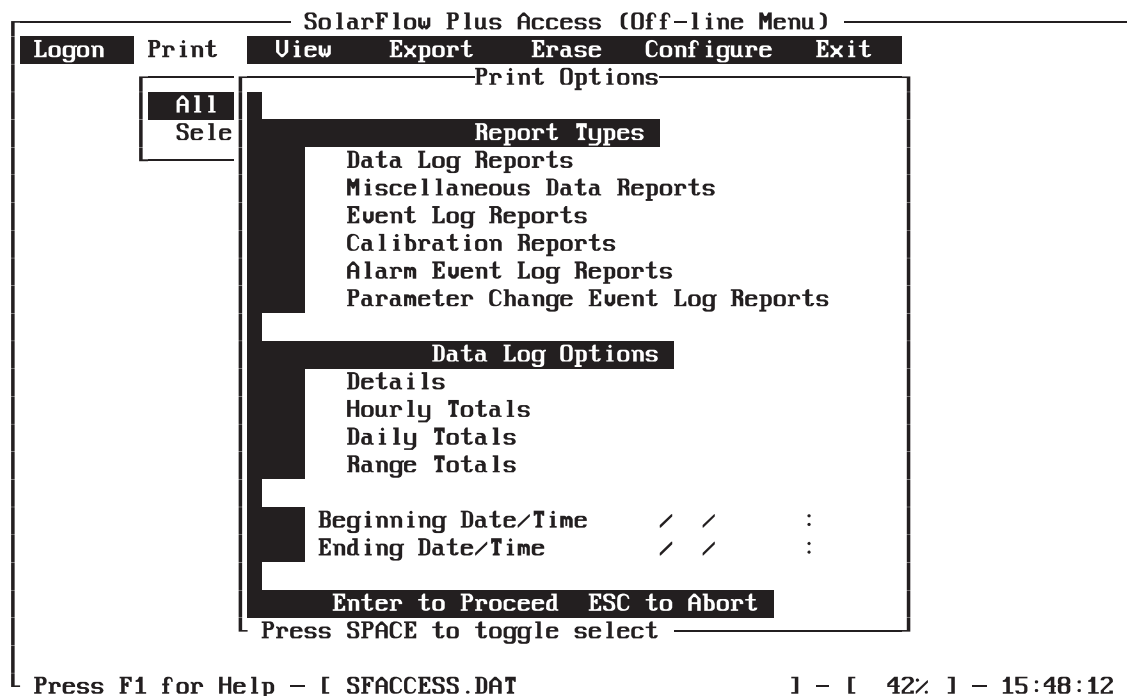
At the "Selected Location" option,

- press the ENTER key to display a pop-up window, as shown in the following illustration, which lists the locations available for selection



After the pop-up window, which lists the locations available for selection, has been accessed,

- use the UP and DOWN ARROW keys to highlight and the SPACE BAR key to select specific locations, and
- press the ENTER key to display a PRINT OPTIONS screen for the selected location, as shown in the following illustration



SFACCESS

After the PRINT OPTIONS screen for a specific location has been accessed,

- use the UP and DOWN ARROW keys to highlight, and the SPACE BAR to select one or more of the Report Types to be printed,

The Report Types include

- Data Log Reports
 - Miscellaneous Data Reports
 - Event Log Reports
 - Calibration Reports
 - Alarm Event Log Reports
 - Parameter Change Event Log Reports
- use the UP and DOWN ARROW keys to highlight, and the SPACE BAR to select one or more of the Data Log Options, which apply to the printing of data log records only,

These options include

- Details, which is a detailed report that is printed with no totals
- Hourly Totals, which is a detail report that is printed with hourly totals
- Daily Totals, which is a detail report that is printed with daily totals

- Range Totals, which is a detail report that is printed with range totals
- use the UP and DOWN ARROW keys to move to the Beginning Date/Time field, and enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when to begin printing in the period of time covered by the collected data,

If no beginning date or time is entered, then printing will begin at the first (or oldest) record in the database.

- use the UP and DOWN ARROW keys to move to the Ending Date/Time field, and enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when to end printing in the period of time covered by the collected data,

If no ending date or time is entered, then reports will print up through the last (or newest) records in the database.

NOTE: If no beginning or ending date or time is entered for the collected data, then all the collected data for that location will be printed.

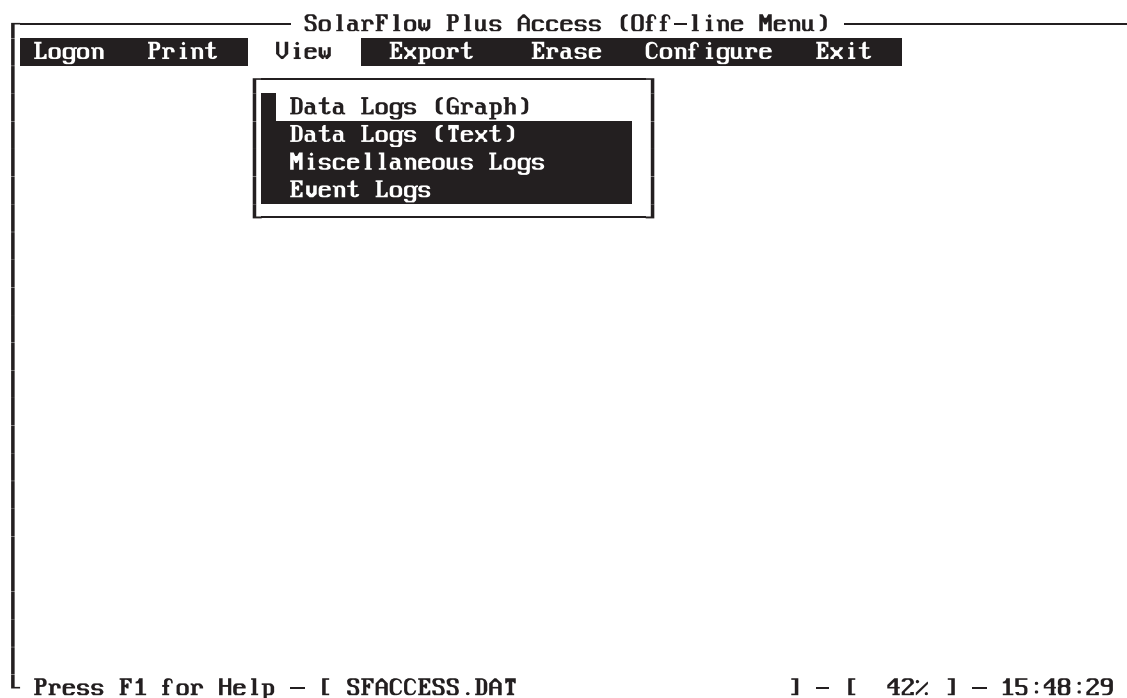
After the PRINT OPTION settings have been selected,

- press the ENTER key to proceed with the printing process, or
- press the ESC (Escape) key to ABORT the process.

THE "VIEW" OPTION

The "View" option, which is shown in the following illustration, is the third of the seven "Off-line" MAIN MENU options. It contains four main sub-options, which include the "Data Logs (Graph)", "Data Logs (Text)", "Miscellaneous Logs", and the "Event Logs" options. These various sub-options allow data to be viewed either in a graph mode, which is not possible in the DANIEL INDUSTRIES HAND HELD DATA TERMINAL, or a text mode.

The graph mode permits up to three items to be graphed simultaneously with the capability to manipulate the data by panning forward, panning backwards, and zooming in and out. The text mode allows viewing of data, events, and miscellaneous logs in column or tabular form.



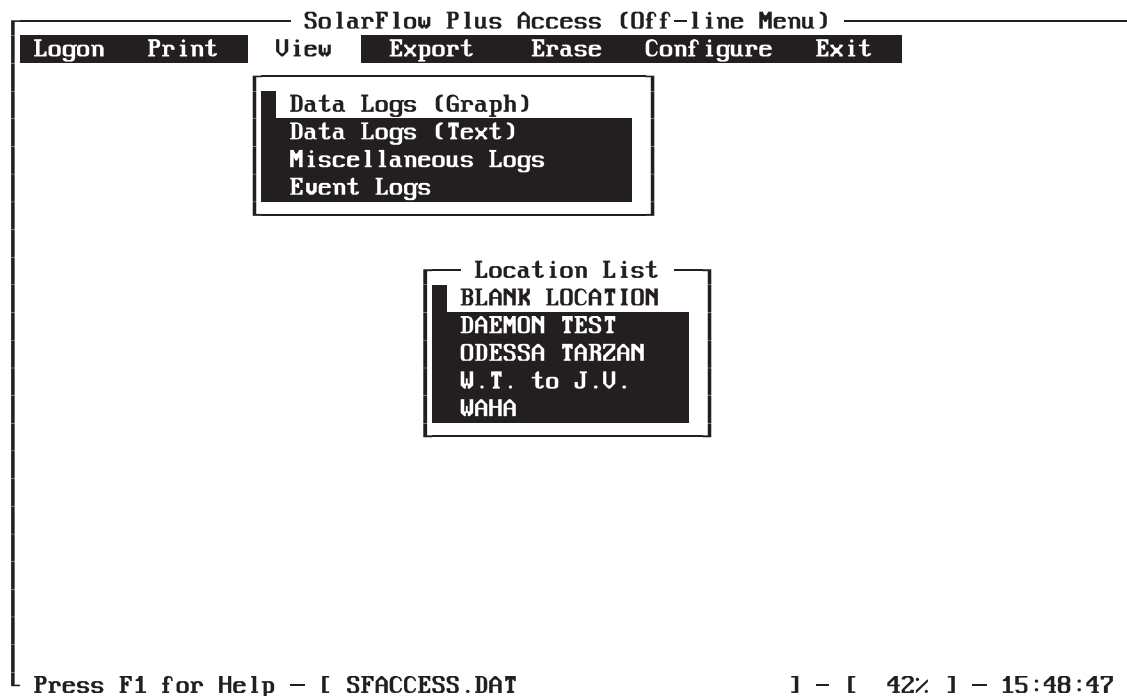
The "Data Logs (Graph)" Option

The first of the four options available within the "Off-line" MAIN MENU "View" option is the "Data Logs (Graph)" option.

At the "Data Logs (Graph)" option,

- press the ENTER key to display a pop-up window, as shown in the following illustration,

Only when a database file is active and data is present, will a pop-up window with one or more locations be displayed.



SFACCESS

After the pop-up window is accessed, highlight and select the desired location, which, in this case, is the "ODESSA TARZAN" selection

- by using the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the VIEW OPTIONS screen, which is shown in the following illustration, for the ODESSA TARZAN location,

```

      SolarFlow Plus Access (Off-line Menu)
Logon  Print  View  Export  Erase  Configure  Exit
      Data Logs (Graph)
      Data Logs (Text)
      View Options
Location - ODESSA TARZAN
Beginning Date/Time  /  /  :  Data Interval 1 Hour
Channel
√ Meter Temperature      Zero Scale 100.0
Meter Pressure           0.0      1000.0
Composite Differential Pressure  0.0      1000.0
Logged Accumulated Volume    0.0      1000.0
Station Volume (Today)       0.0      1000.0
Station Volume (Yesterday)   0.0      1000.0
      F10: Begin View  ESC: Abort
Enter MM/DD/YY date and HH:MM time to begin view
Press F1 for Help - [ SFACCESS.DAT ] - [ 42% ] - 15:49:42
```

After the VIEW OPTIONS screen for the desired location has been accessed,

- at the Beginning Date/Time field, enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when to begin viewing in the period of time the collected data covers,

If no date or time is entered, then the first (oldest) record in the database will be graphed.

- use the TAB key, or RIGHT ARROW key to move to the Data Interval field, and use the SPACE BAR to select a data time interval (5, 15, or 30 minutes, or 1, 4, or 24 hours) with the default being 1 hour,
- use the TAB key and/or UP and DOWN ARROW keys to move to the items listed under the Channel column,
- use the SPACE BAR to select (with a check mark) or de-select one or more channel items to be graphed with up to three items being charted at one time,

If more than three channels items are selected, the first three items selected will be graphed. If no channels items are selected, then none will be graphed.

- use the TAB key and/or UP and DOWN ARROW keys to move to and enter the number values listed under the Zero (low) and Full (high) Scale columns with the default being 0.0 for the Zero Scale values and 100.0 to 1000.0 being the values for the Full Scale values.

SFACCESS

Once the option settings have been selected,

- press the F10 key to indicate the selection process is finished, and the "View" process can begin, or
- press the ESC (Escape) key to ABORT the selection process.

Graphic screen plots can be displayed with a minimum of 24 data points (level one) at the closest, "zoomed in" screen view, to a maximum of 576 data points (level six) at the farthest, "zoomed out" screen view. Level two shows 49 data points, level three shows 97, level four shows 193, and level five shows 289. Each data point represents a set of data identified by location, date and time. Symbols, such as asterisks, circles and rectangles help to represent and track these data points.

Although there may be many data points, the program will only show the first 97 (or 96 intervals) beginning with the "Beginning Date/Time". The remaining data points, as well as the entire graph, can be viewed by using the following features.

The graph can be manipulated by using

- the LEFT ARROW key to pan to the left 1/24 the width of the screen,
- the RIGHT ARROW key to pan to the right 1/24 the width of the screen,
- the UP ARROW key to pan to the left 1/2 the width of the screen,
- the DOWN ARROW key to pan to the right 1/2 the width of the screen,
- The PLUS (+) key to zoom into a smaller scale to indicate greater detail,
- The MINUS (-) key to zoom out to a larger scale to indicate less detail,
- the HOME key to move to the earliest record, or the first log time in the database for a location,

SFACCESS

- the END key to move the most recent record, or the last log time in the database for a location.
- the SPACE BAR key to toggle between units and scales of variables,
- the ESC (escape) key to exit from the display.

Finally, after completing operations on the ODESSA TARZAN location, the user has the option of continuing to configure and view any of the other specific locations listed in the pop-up window under the "Data Logs (Graph)" option.

However, since the configuration and view process is the same for these two locations as for the ODESSA TARZAN location, no further illustration of this operation is necessary.

The "Data Logs (Text)" Option

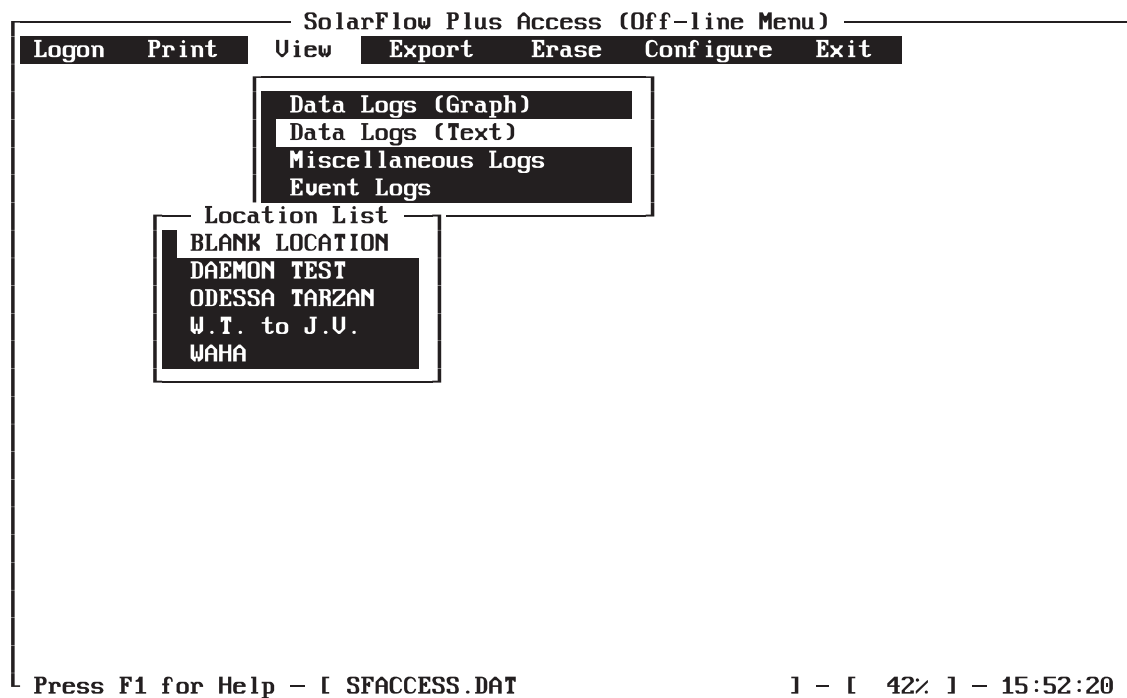
The second of the four options available within the MAIN MENU "View" option is the "Data Logs (Text)" option. This option, which is a type of tabular data log, allows for the viewing of data collected in a text form. The data is presented in specific columns that can be scrolled and viewed in four directions on the screen.

To select and highlight the "Data Logs (Text)" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display a pop-up window with one or more locations listed, as shown in the following illustration.



SFACCESS

After the pop-up window is accessed, highlight and select the desired location, which, in this case, is the ODESSA TARZAN selection

- by using the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the VIEW OPTIONS screen, which is shown in the following illustration, for the ODESSA TARZAN location,

The screenshot displays the 'SolarFlow Plus Access (Off-line Menu)' interface. At the top, a menu bar includes 'Logon', 'Print', 'View', 'Export', 'Erase', 'Configure', and 'Exit'. The 'View' option is selected, opening a sub-menu with 'Data Logs (Graph)', 'Data Logs (Text)', 'Miscellaneous Logs', and 'Event Logs'. The 'Data Logs (Text)' option is highlighted. Below this, the 'Location List' is shown, with 'ODESSA TARZAN' selected. The 'View Options' screen for this location is displayed, showing 'Loc. Name - ODESSA TARZAN' and 'Loc. ID - 488213'. It also shows 'Beginning Date/Time' as ' / / :'. At the bottom of the 'View Options' screen, it says 'Enter/F10: Begin View ESC: Abort'. Below the 'View Options' screen, a prompt reads 'Enter MM/DD/YY date and HH:MM time to begin view'. At the bottom of the main screen, it says 'Press F1 for Help - [SFACCESS.DAT' and 'I - [42%] - 15:52:38'.

After the VIEW OPTIONS screen for the ODESSA TARZAN location has been accessed,

- at the Beginning Date/Time field, enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when logs will begin being displayed in the period of time the logs cover,

If no date or time is entered, then the first (earliest) record will be retrieved and displayed.

SFACCESS

After the Beginning Date/Time has been selected,

- press the F10 key to indicate the selection process is finished, and to display the VIEW DATA LOGS screen, which is shown in the following illustration, or
- press the ESC (Escape) key to ABORT the selection process.

View Data Logs								
Loc. Name-[	ODESSA TARZAN]	Loc. ID-[	488213]	Cntrt-[	7]	Int.-[	1 Hour]	
Unit Name-[	ODESSA TARZAN]	Unit ID-[	488213]	Calc Mod.-[	AGA3 2480 SSNGL]			
Date	Time	Meter Temp	Meter Pres	Comp DP	Log Volume	Today Vol	Ysday Vol	U-R
11/01/91	07:00	46	618	12.7	1182.2	26871.7	33112.6	...
11/01/91	08:00	46	609	10.6	1065.2	1065.2	26871.7	...
11/01/91	09:00	46	587	3.7	582.6	1647.8	26871.7	...
11/01/91	10:00	47	559	3.7	600.0	2247.8	26871.7	...
11/01/91	11:00	47	530	0.4	131.1	2378.9	26871.7	...
11/01/91	12:00	47	503	2.0	412.5	2791.4	26871.7	...
11/01/91	13:00	47	490	2.7	477.3	3268.7	26871.7	...
11/01/91	14:00	47	482	3.2	520.3	3789.0	26871.7	...
11/01/91	15:00	46	487	7.2	783.8	4572.8	26871.7	...
11/01/91	16:00	46	498	6.6	759.4	5332.2	26871.7	...
11/01/91	17:00	46	509	5.3	686.1	6018.3	26871.7	...
11/01/91	18:00	47	532	0.6	89.7	6108.0	26871.7	...
11/01/91	19:00	44	554	0.0	0.0	6108.0	26871.7	...
11/01/91	20:00	39	563	0.0	0.0	6108.0	26871.7	...
11/01/91	21:00	37	569	0.0	0.0	6108.0	26871.7	...
11/01/91	22:00	38	577	0.0	0.0	6108.0	26871.7	...
11/01/91	23:00	41	588	0.0	0.0	6108.0	26871.7	...
11/02/91	00:00	50	594	0.2	64.7	6172.7	26871.7	...
[SFACCESS.DAT					] - [42%] - 15:53:21			

Tabular data log screens, such as the VIEW DATA LOGS screen, can be viewed and manipulated by using

- the HOME Key to display data beginning at the earliest date,
- the END key to display data ending with the latest date,
- the LEFT ARROW key to scroll the data screen to the left,
- the RIGHT ARROW key to scroll the data screen to the right,
- the UP ARROW key to scroll the data screen up one logging interval,
- the DOWN ARROW key to scroll the data screen down one logging interval,
- the TAB key to scroll the data screen to the right,
- the SHIFT and TAB keys scroll the data screen to the left,

This is done by holding the SHIFT key, and pressing the TAB key.

- The CONTROL and LEFT ARROW key to scroll the data screen to the far left,

This is done by holding the CONTROL key and pressing the LEFT ARROW key.

- The CONTROL and RIGHT ARROW key to scroll the data screen to the far right,

This is done by holding the CONTROL key and pressing the RIGHT ARROW key.

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- the PAGE UP key to scroll up one full screen with the previous top line being displayed as the bottom line,
- the PAGE DOWN key to scroll down one full screen with the previous bottom line being displayed as the top line,
- the ESC (escape) key to exit to the previous screen.

Finally, after completing operations on the desired location, the user has the option of continuing to configure and view any of the other selections listed in the pop-up window under the "Data Logs (Text)" option.

The "Miscellaneous Logs" Option

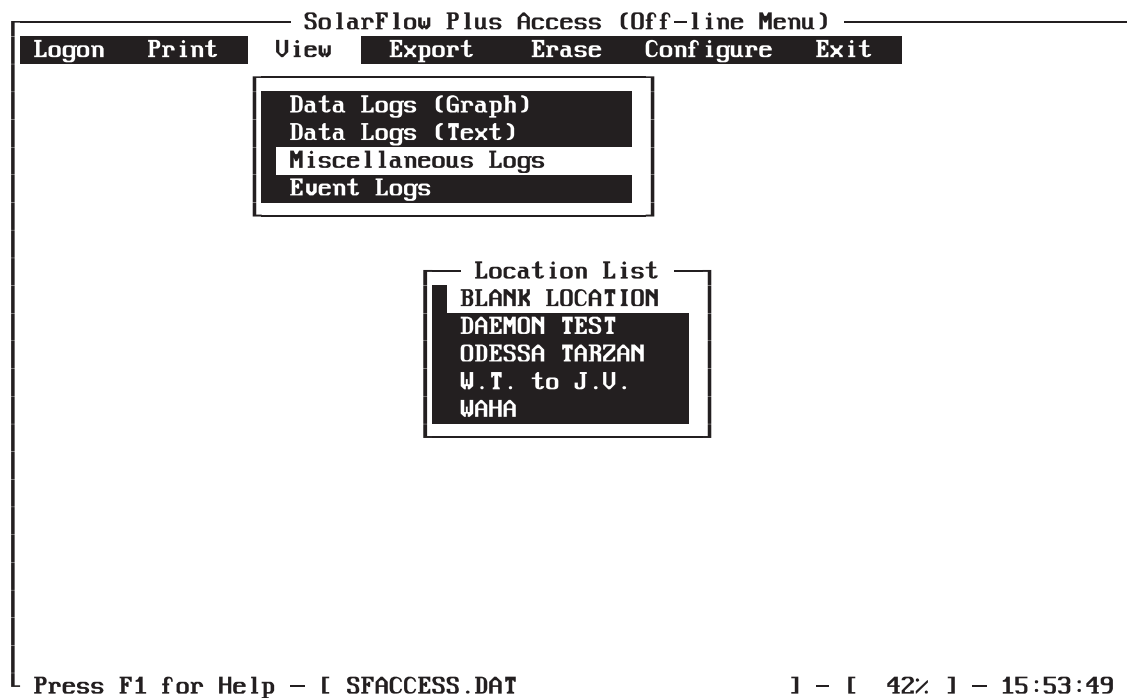
The third of the four options available within the MAIN MENU "View" option is the "Miscellaneous Logs" option. This option, which is a type of tabular data log, contains data on parameters such as temperature, pressure, specific gravity, and meter and flow factors.

To select and highlight the "Miscellaneous Logs" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display a pop-up window with one or more locations listed, as shown in the following illustration.



SFACCESS

After the pop-up window is accessed, highlight and select the desired location, which, in this case, is the ODESSA TARZAN selection

- by using the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the VIEW MISCELLANEOUS LOGS screen, which is shown in the following illustration, for the ODESSA TARZAN location

View Miscellaneous Logs			
Loc. Name-[	ODESSA TARZAN]	Loc. ID-[	488213]
Unit Name-[	ODESSA TARZAN]	Unit ID-[	488213]
		Cntrt-[	7]
		Int.-[	1 Hour]
		Calc Mod.-[	AGA3 2480 SSNGL]
Chan	Description	Value	Units
32	Atmospheric Pressure	13.20	Psi Absolute
22	Differential Pressure (High Range)	200	Inches Water
22	Differential Pressure (High Range)	0	Inches Water
19	Differential Pressure (Low Range) /	30	Inches Water
19	Differential Pressure (Low Range) /	0	Inches Water
36	Carbon Dioxide	0.00	Mol %
37	Nitrogen	0.00	Mol %
35	Specific Gravity	0.600	
58	Low Flow Cutoff Limit	2.00	% of DiffP Scale
20	Meter Pressure / High	1500	Psi Gauge
20	Meter Pressure / Low	0	Psi Gauge
21	Meter Temperature / High	150	Degrees F
21	Meter Temperature / Low	0	Degress F
31	Orifice Diameter	6.500	Inches
52	Orifice Material	Steel	
30	Pipe Diameter	10.035	Inches
33	Pressure Base	14.65	Psi Absolute
60	Sampler Output: Pulse Period	0.0	Seconds
38	Tap Location	Downstream	
Press F1 for Help - [SFACCESS.DAT		] - [42%] - 15:54:06	

Tabular data log screens, such as VIEW MISCELLANEOUS LOGS screen, can be viewed and manipulated by using

- the HOME Key to display data beginning at the earliest date,
- the END key to display data ending with the latest date,
- the UP ARROW key to scroll the data screen up one logging interval,
- the DOWN ARROW key to scroll the data screen down one logging interval,
- the PAGE UP key to scroll up one full screen with the previous top line being displayed as the bottom line,
- the PAGE DOWN key to scroll down one full screen with the previous bottom line being displayed as the top line,
- the ESC (escape) key to exit to the previous screen.

Finally, after completing operations on the desired location, the user has the option of continuing to configure and view any of the other selections listed in the pop-up window under the "Miscellaneous Logs" option.

SFACCESS

The "Event Logs" Option

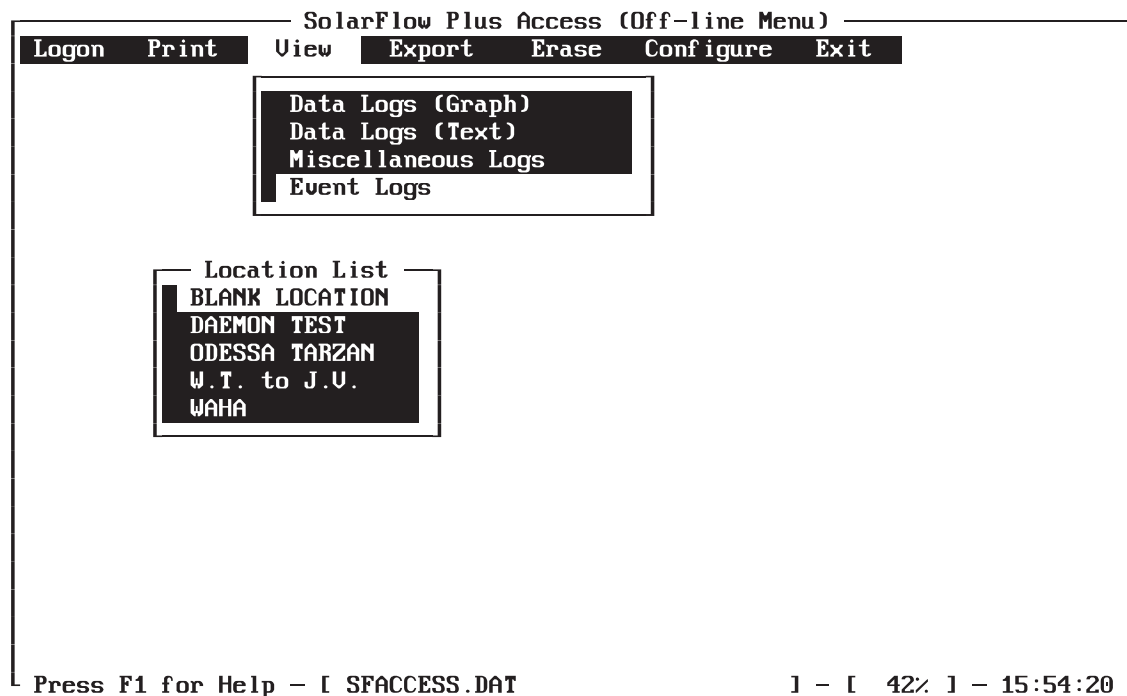
The last of the four options available within the MAIN MENU "View" option is the "Event Logs" option. This option, which is a type of tabular data log, contains changes in parameters, data on alarms and operator entries.

To select and highlight the "Event Logs" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display a pop-up window with one or more locations listed, as shown in the following illustration.



After the pop-up window is accessed, highlight and select the desired location, which, in this case, is the ODESSA TARZAN selection

- by using the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display the VIEW OPTIONS screen, which is shown in the following illustration, for the ODESSA TARZAN location.

The screenshot displays the 'SolarFlow Plus Access (Off-line Menu)' interface. At the top, a menu bar includes 'Logon', 'Print', 'View', 'Export', 'Erase', 'Configure', and 'Exit'. The 'View' option is selected, opening a sub-menu with 'Data Logs (Graph)', 'Data Logs (Text)', 'Miscellaneous Logs', and 'Event Logs'. The 'Data Logs (Text)' option is highlighted. Below this, the 'View Options' screen is shown, displaying 'Loc. Name - ODESSA TARZAN' and 'Loc. ID - 488213'. It also shows 'Beginning Date/Time' with fields for month, day, year, hour, and minute. At the bottom of the View Options screen, it says 'Enter/F10: Begin View' and 'ESC: Abort'. Below the View Options screen, a prompt reads 'Enter MM/DD/YY date and HH:MM:SS time to begin view'. At the very bottom of the screen, it says 'Press F1 for Help - [SFACCESS.DAT' on the left and 'I - [42%] - 15:54:33' on the right.

SFACCESS

After the VIEW OPTIONS screen for the desired location has been accessed,

- at the Beginning Date/Time field, enter the date and time in the MM/DD/YY and HH:MM:SS formats to indicate when logs will begin being displayed in the period of time the logs cover.

If no date or time is entered, then the earliest log will be retrieved and displayed.

After the Beginning Date/Time has been selected,

- press the F10 key to indicate the selection process is finished, and to display the VIEW EVENT LOGS screen, which is shown in the following illustration, or
- press the ESC (Escape) key to ABORT the selection process.

View Event Logs					
Loc. Name-[	ODESSA TARZAN]	Loc. ID-[	488213]	Cntrt-[	7]
Unit Name-[	ODESSA TARZAN]	Unit ID-[	488213]	Int.-[	1 Hour]
				Calc Mod.-[	AGA3 2480 SSNGL]
Date	Time	Description	Number	Value #1 (Old)	Value #2 (N
11/01/91	09:29:49	User Logged On		120	
11/01/91	09:30:23	Event Log Upload		911024093602	911101092
11/01/91	09:32:36	Event Log Upload		911022085029	911101093
11/01/91	09:34:14	Data Log Upload		911022100000	911101090
11/01/91	09:34:32	Locat Block Set	Upload Date		
11/05/91	09:59:43	User Logged On		120	
11/05/91	10:00:13	Event Log Upload		911101092949	911105095
11/05/91	10:00:53	Data Log Upload		911101070000	911105100
11/05/91	10:01:08	Locat Block Set	Upload Date		
11/06/91	08:05:13	Alarm Activate	8		
11/06/91	08:51:38	Alarm Deactivate	8		
11/12/91	10:16:25	User Logged On		120	
11/12/91	10:16:43	Alarm Acknowledg	8		
11/12/91	10:17:00	Event Log Upload		911105095943	911112101
11/12/91	10:18:09	Data Log Upload		911105070000	911112100
11/12/91	10:18:25	Locat Block Set	Upload Date		
11/14/91	07:38:50	Alarm Activate	13		
11/14/91	07:40:06	Alarm Deactivate	13		
11/14/91	07:42:36	Alarm Activate	13		
[SFACCESS.DAT				] - [42%] - 15:54:43	

SFACCESS

Tabular data log screens, such as VIEW EVENT LOGS screen, can be viewed and manipulated by using

- the HOME Key to display data beginning at the earliest date,
- the END key to display data ending with the latest date,
- the LEFT ARROW key to scroll the data screen to the left,
- the RIGHT ARROW key to scroll the data screen to the right,
- the UP ARROW key to scroll the data screen up one logging interval,
- the DOWN ARROW key to scroll the data screen down one logging interval,
- the TAB key to scroll the data screen to the right,
- the SHIFT and TAB keys scroll the data screen to the left,

This is done by holding the SHIFT key, and pressing the TAB key.

- The CONTROL and LEFT ARROW key to scroll the data screen to the far left,

This is done by holding the CONTROL key and pressing the LEFT ARROW key.

- The CONTROL and RIGHT ARROW key to scroll the data screen to the far right,

This is done by holding the CONTROL key and pressing the RIGHT ARROW key.

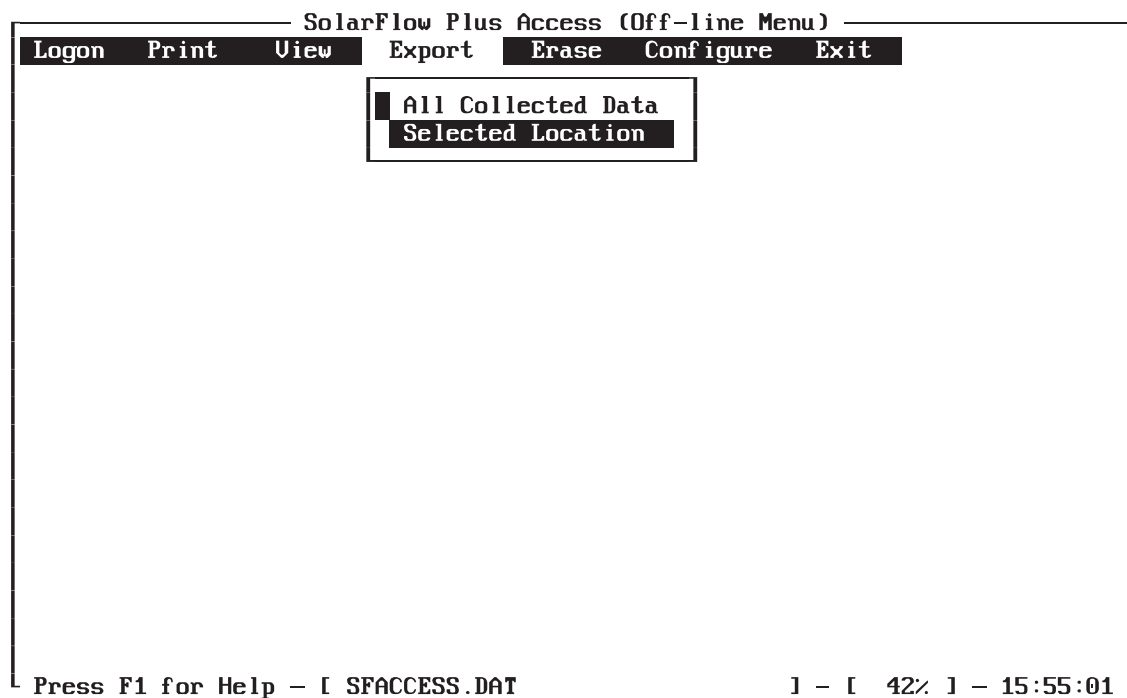
- the PAGE UP key to scroll up one full screen with the previous top line being displayed as the bottom line,
- the PAGE DOWN key to scroll down one full screen with the previous bottom line being displayed as the top line,
- the ESC (escape) key to exit to the previous screen.

Finally, after completing operations on the desired location, the user has the option of continuing to configure and view any of the other selections listed in the pop-up window under the "Event Logs" option.

THE "EXPORT" OPTION

The "Export" option, which is shown in the following illustration, is the fourth of the seven "Off-line" MAIN MENU options. It contains two main sub-options, which include the "All Collected Data" and the "Selected Locations" options.

This option allows for the exporting of SOLARFLOW PLUS data, which is in a binary database form, into a SFDC (SOLARFLOW DATA COLLECTION) or ASCII format. When necessary, the SFDC or ASCII-formatted data can then be imported by other user software where it can be manipulated to meet specific user needs. In addition, either all or selected location data can be exported.



In order to export SOLARFLOW PLUS data, the user must first configure the "Export Function Setup" located in the "Off-line" MAIN MENU's "Configure" option. For detailed information about the "Configure" option, refer to Section 2 of this manual.

NOTE: For information about importing SOLARFLOW PLUS data into other software programs, refer to the APPLICATION NOTES located in this manual's appendix.

SFACCESS

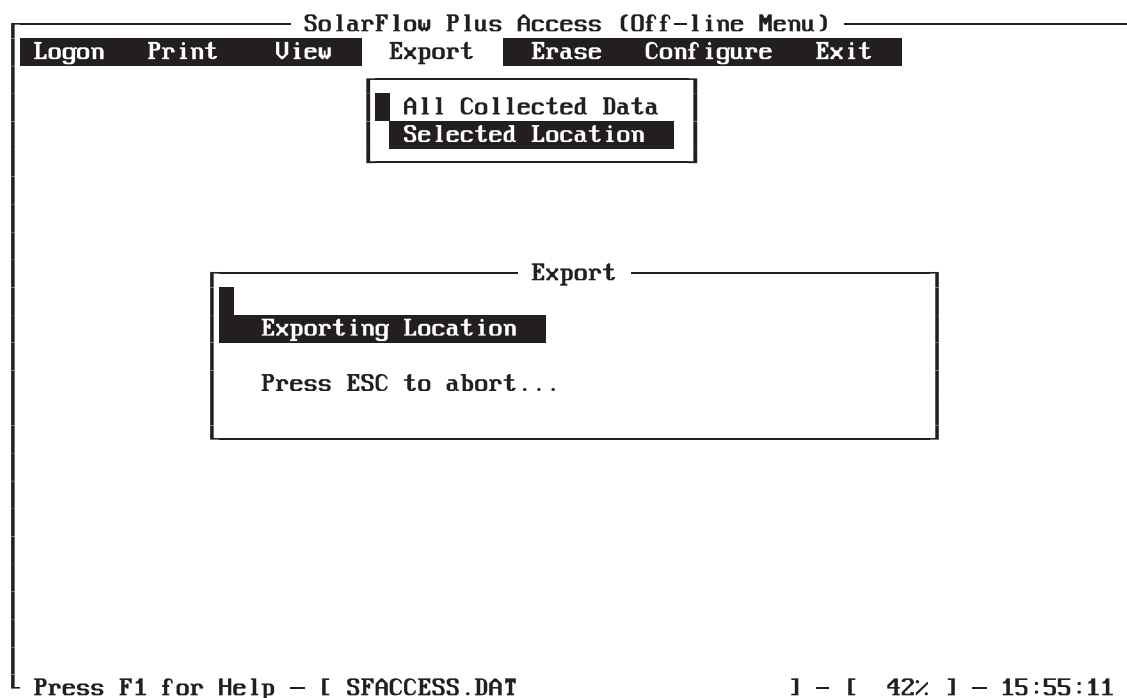
The "All Collected Data" Option

The first of the two options available within the "Off-line" MAIN MENU "Export" option is the "All Collected Data" option.

At the "All Collected Data" option,

- press the ENTER key to display an EXPORT screen, which is shown in the following illustration, that indicates the SFACCESS program is automatically exporting all collected SOLARFLOW PLUS data.

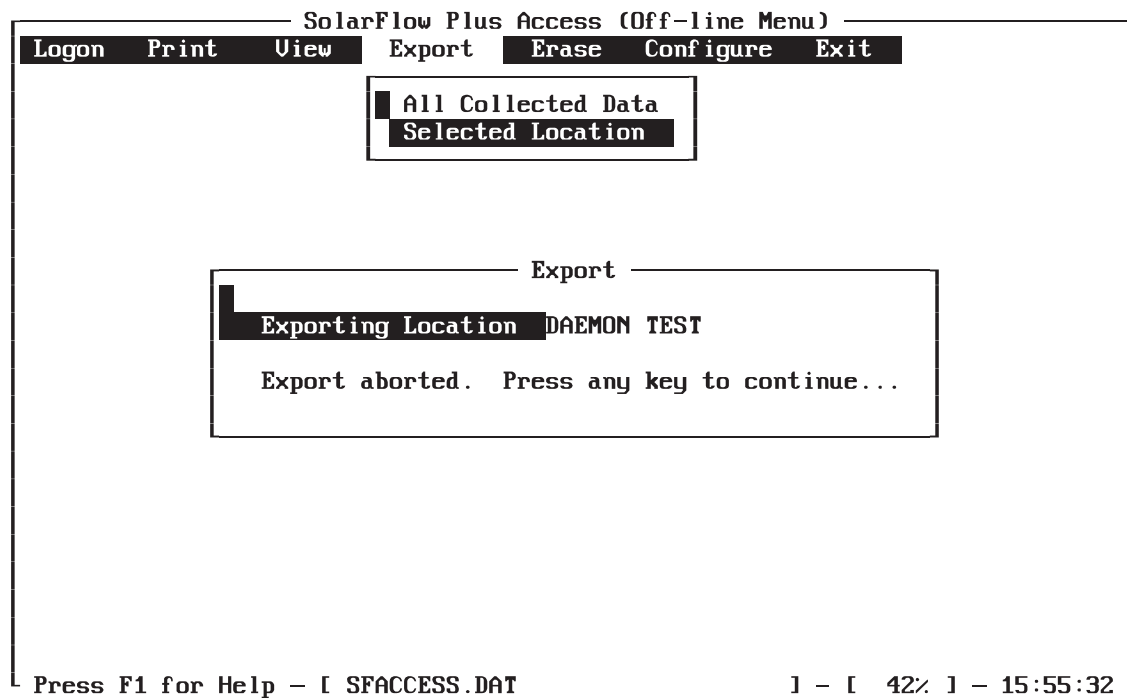
All collected data will be exported first-to-last in the order of the locations listed in the SFACCESS program. In addition, as the operation continues, the EXPORT screen displays a message indicating what location is currently being exported.



At any time during the exporting process, the user may abort the operation

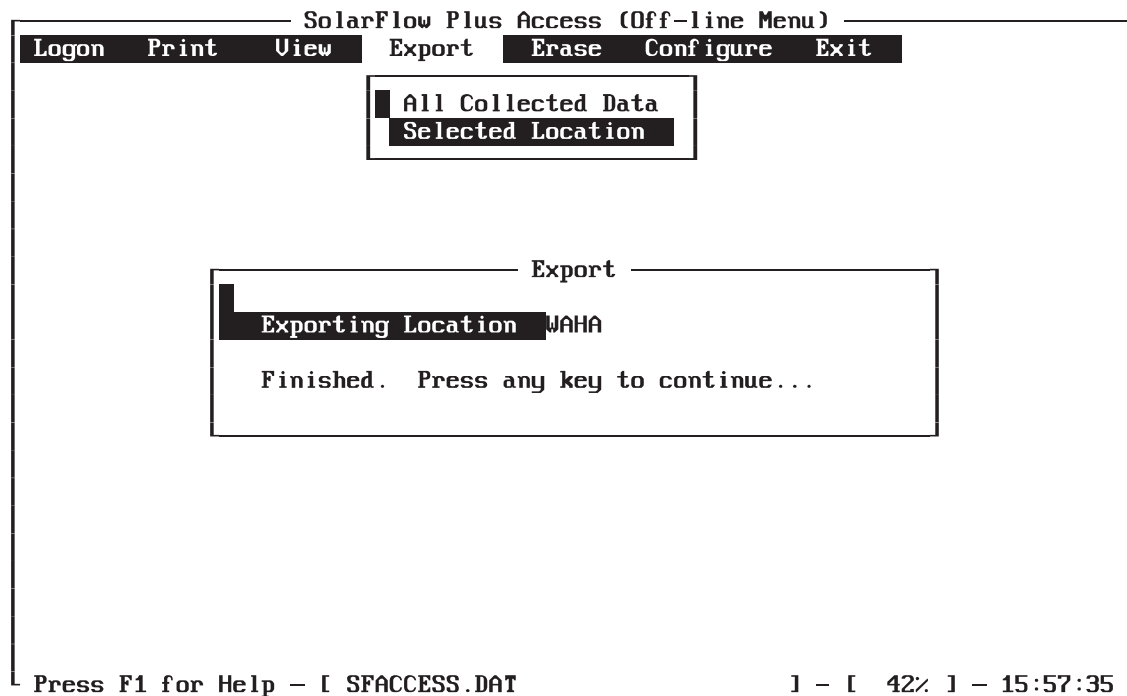
- by pressing the ESC (Escape) key.

As shown in the following illustration, the EXPORT screen will then display the message, "Export aborted. Press any key to continue. . .", to indicate the process has been discontinued.



SFACCESS

If the exporting process is not aborted, all collected data locations listed in the SFACCESS program will be exported until the operation is completed. Upon completion, the EXPORT screen, which is shown in the following illustration, will appear with the message, "Finished. Press any key to continue. . .".



The "Selected Location" Option

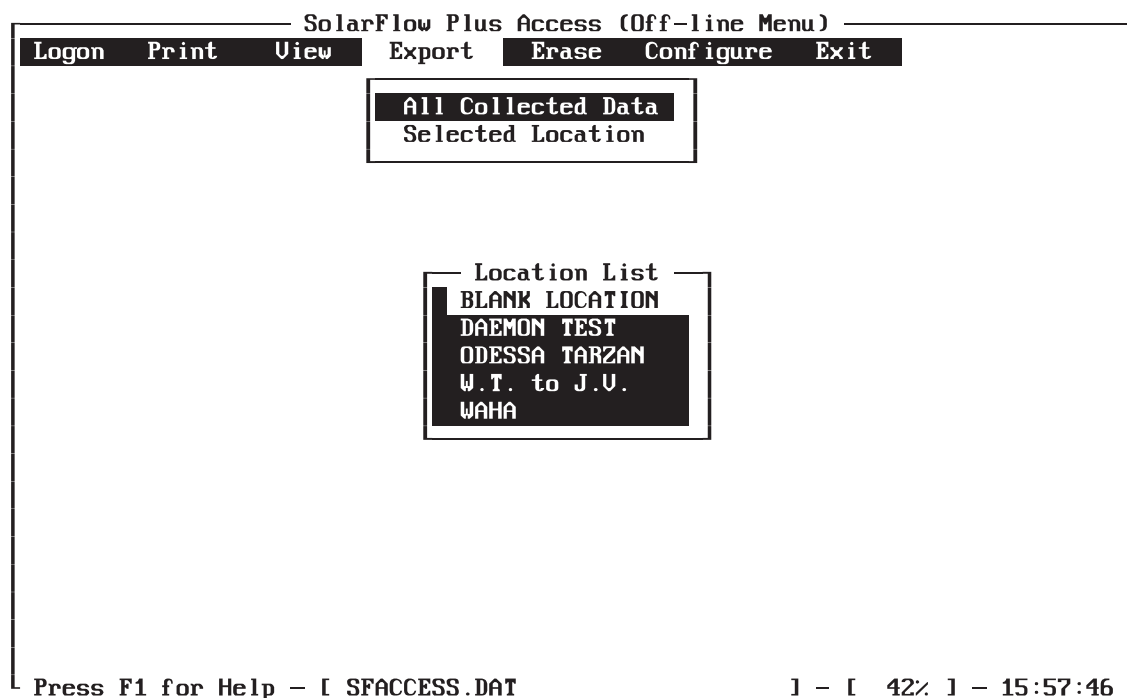
The last of the two options available within the MAIN MENU "Export" option is the "Selected Location" option.

To select and highlight the "Selected Location" option,

- use the UP and DOWN ARROW keys.

Then,

- press the ENTER key to display a pop-up window with one or more locations listed, as shown in the following illustration.



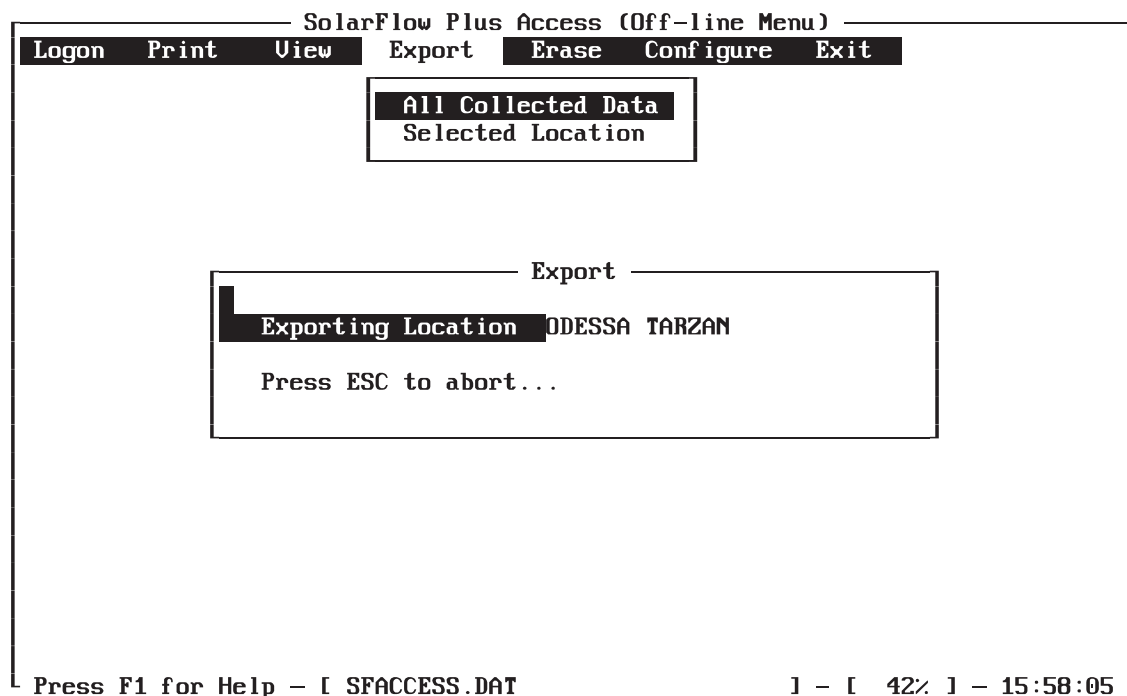
SFACCESS

After the pop-up window is accessed, highlight and select the desired location, which, in this case, is the ODESSA TARZAN selection

- by using the UP and DOWN ARROW keys.

Then,

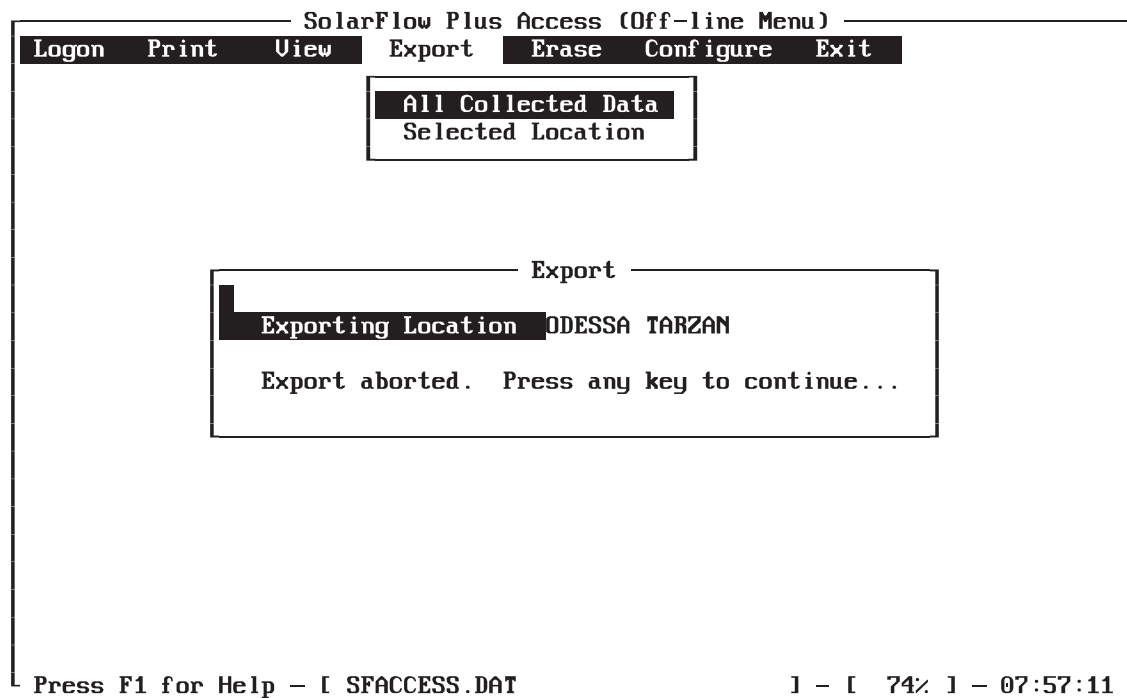
- press the ENTER key to display an EXPORT screen, which is shown in the following illustration, that indicates the SFACCESS program is automatically exporting the SOLARFLOW PLUS data for the specified location.



At any time during the exporting process, the user may abort the operation

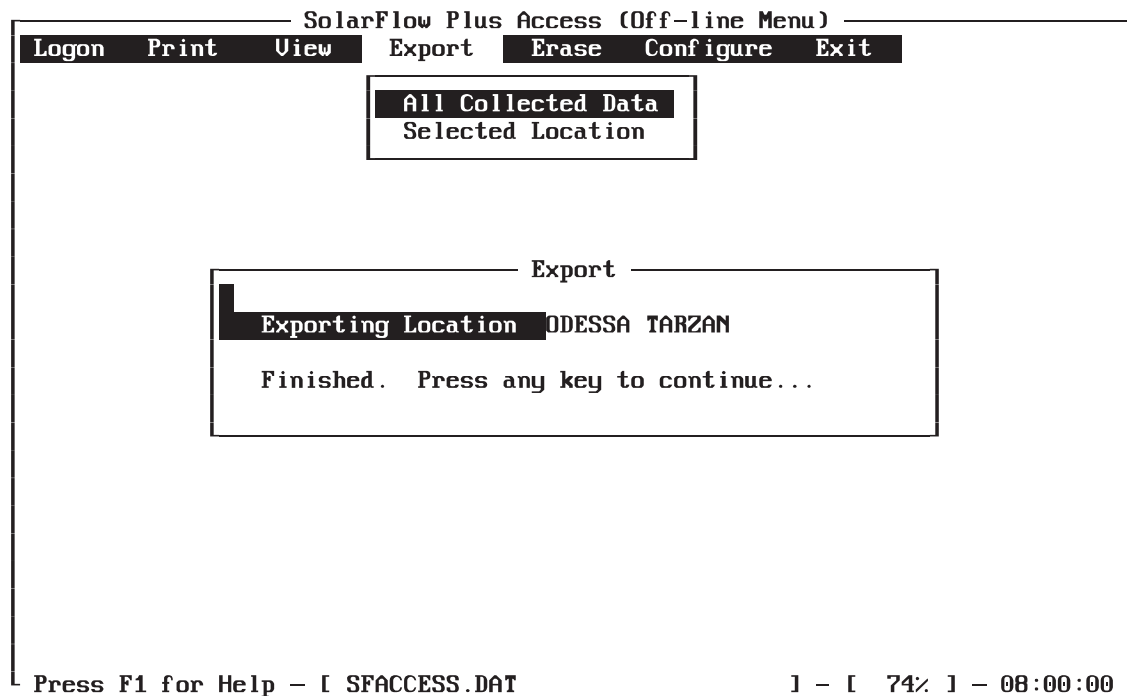
- by pressing the ESC (Escape) key.

As shown in the following illustration, the EXPORT screen will then display the message, "Export aborted. Press any key to continue. . .", to indicate the process has been discontinued.



SFACCESS

If the exporting process is not aborted, the collected data for the specified location will be exported until the operation is completed. Upon completion, the EXPORT screen, which is shown in the following illustration, will appear with the message, "Finished. Press any key to continue. . .".



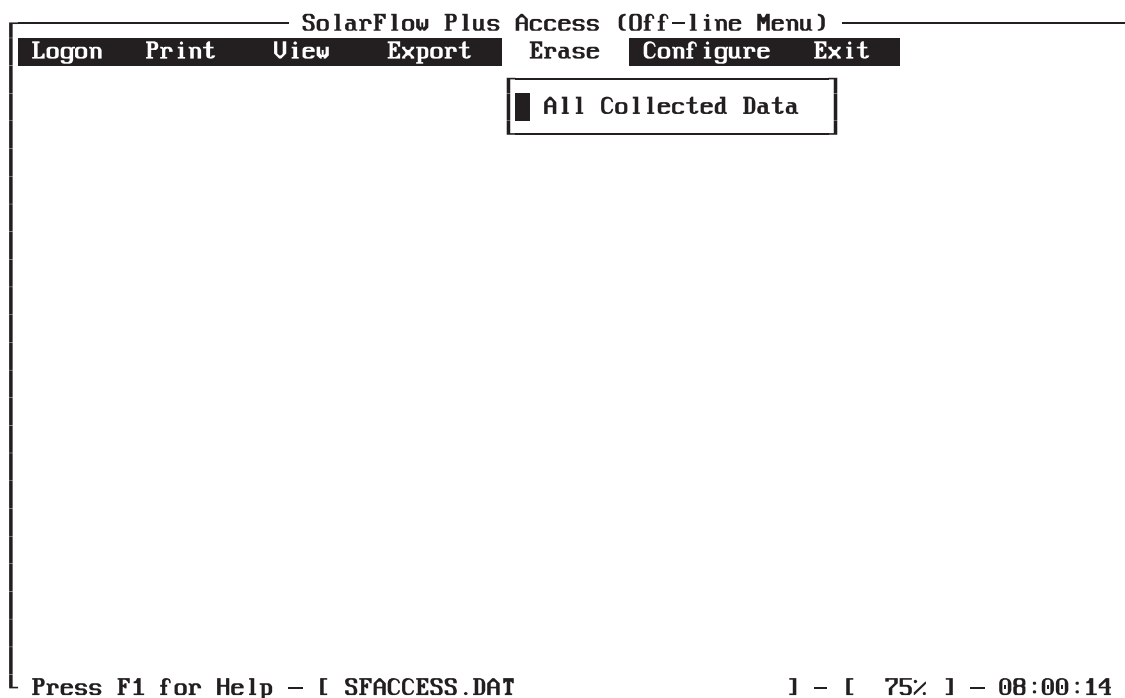
THE "ERASE" OPTION

The "Erase" option, which is shown in the following illustration, is the fifth of the seven "Off-line" MAIN MENU options. It contains only one sub-option, which is the "All Collected Data" option.

When employed, this option completely erases all data from the SFACCESS database file, which is specified in the "Database Setup" located in the "Off-line" MAIN MENU's "Configure" option.



CAUTION: EXTREME CARE should be used when employing the "Erase" option since elimination of the ENTIRE database will result.



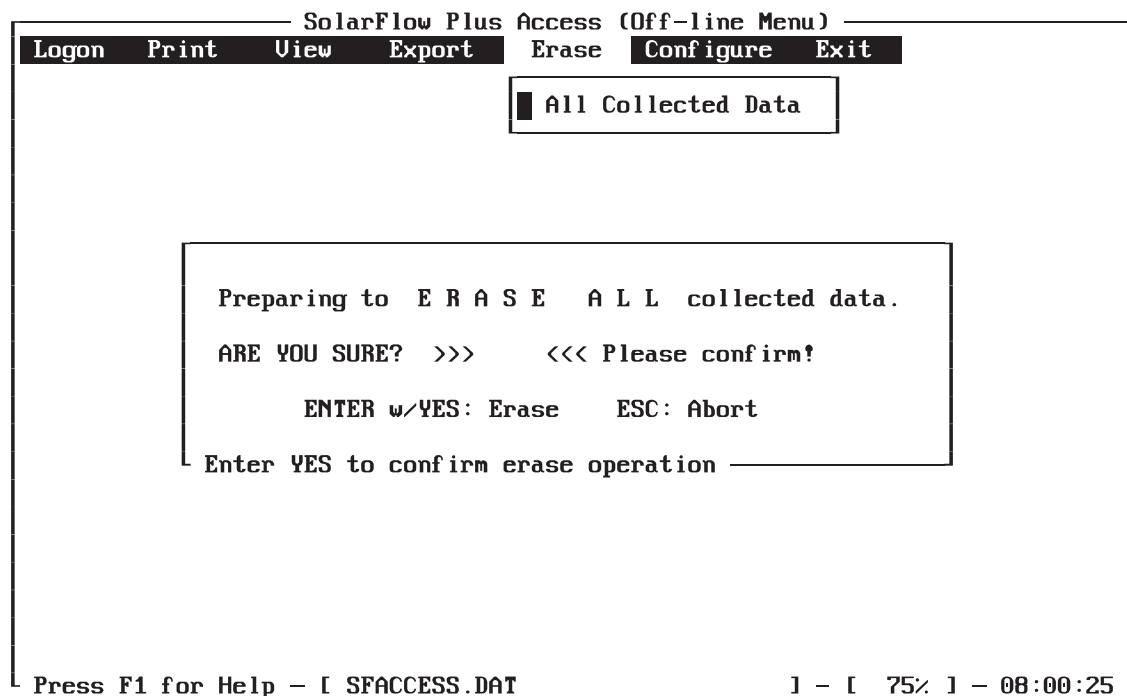
SFACCESS

The "All Collected Data" Option

If all collected data is to be erased, at the "All Collected Data" option,

- press the ENTER key.

If a database file is active or data is present, a pop-up window, as shown in the following illustration, will be displayed with the message, "Preparing to ERASE ALL collected data", and the question, "ARE YOU SURE? Please confirm!".



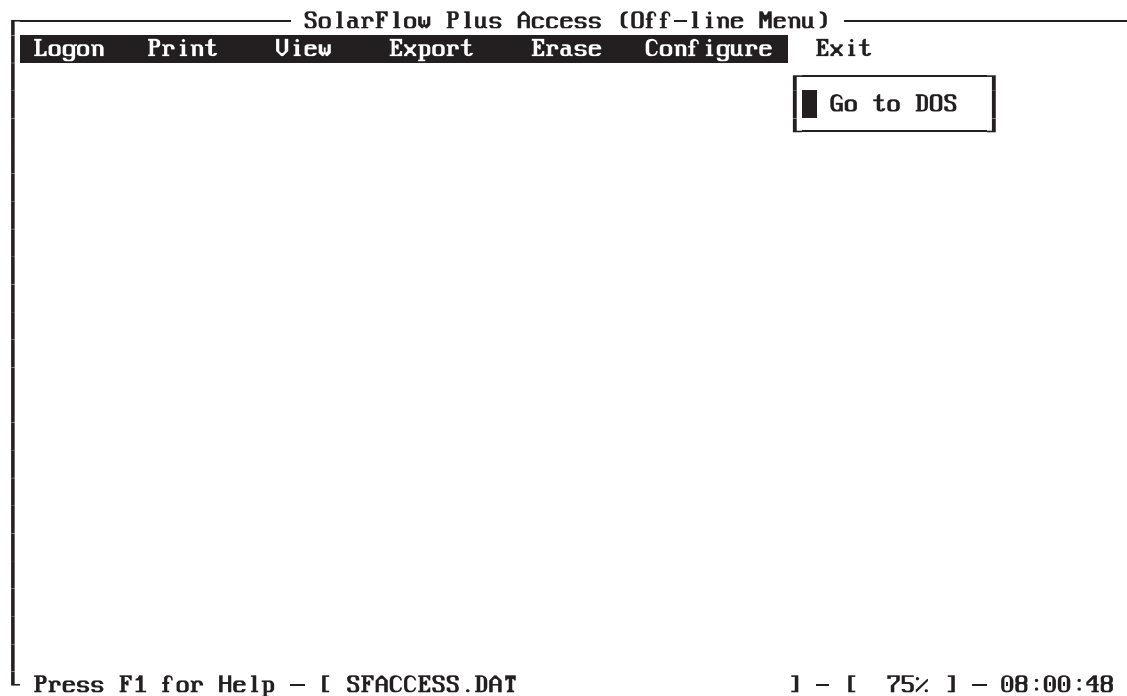
There is also the request, along with the "ARE YOU SURE? Please confirm!" message, which directs the user to "enter YES to confirm erase operation". At this point, the user has the option to either enter the word, YES, and

- press the ENTER key, or
- press the ESC (Escape) key to Abort.

SFACCESS

THE "EXIT" OPTION

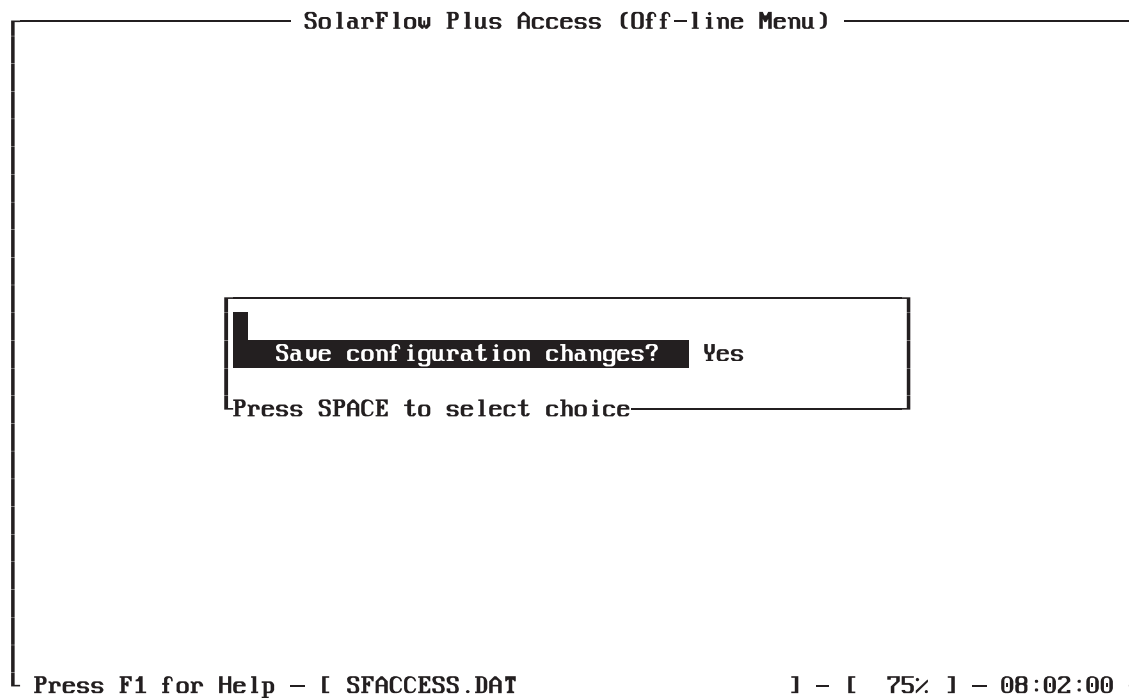
The "Exit" option, which is shown in the following illustration, is the last of the seven "Off-line" MAIN MENU options. It contains only one sub-option, which is the "Go to DOS" option that allows the user to exit from the SFACCESS program and to return to the DOS prompt.



The "Go to DOS" Option

At the "Go to DOS" option,

- press the ENTER key to display a pop-up window, as shown in the following illustration, with the question, "Save configuration changes?".



NOTE: The pop-up window with the "Save configuration changes?" question appears only if changes were made to the SFACCESS configuration that were not previously saved.

SFACCESS

After the pop-up window appears,

- use the SPACE BAR to toggle and select YES or NO to indicate whether the configuration changes made to the SFACCESS program should be saved or not.

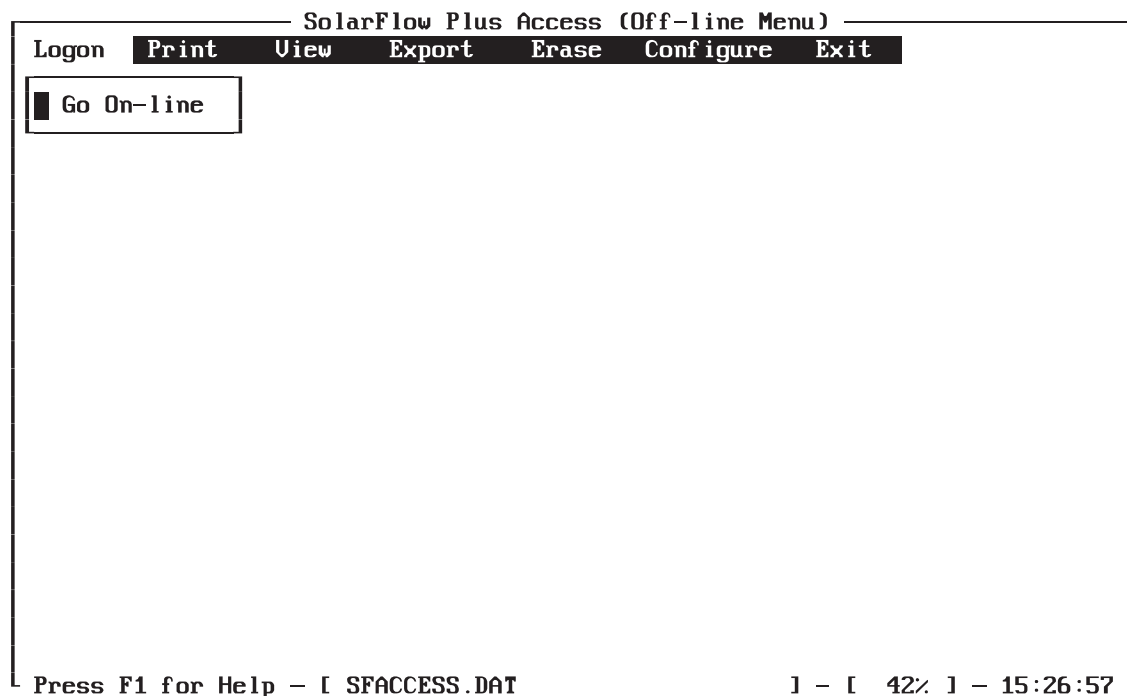
Then,

- press the ENTER key to from the SFACCESS program, and return to the DOS prompt.

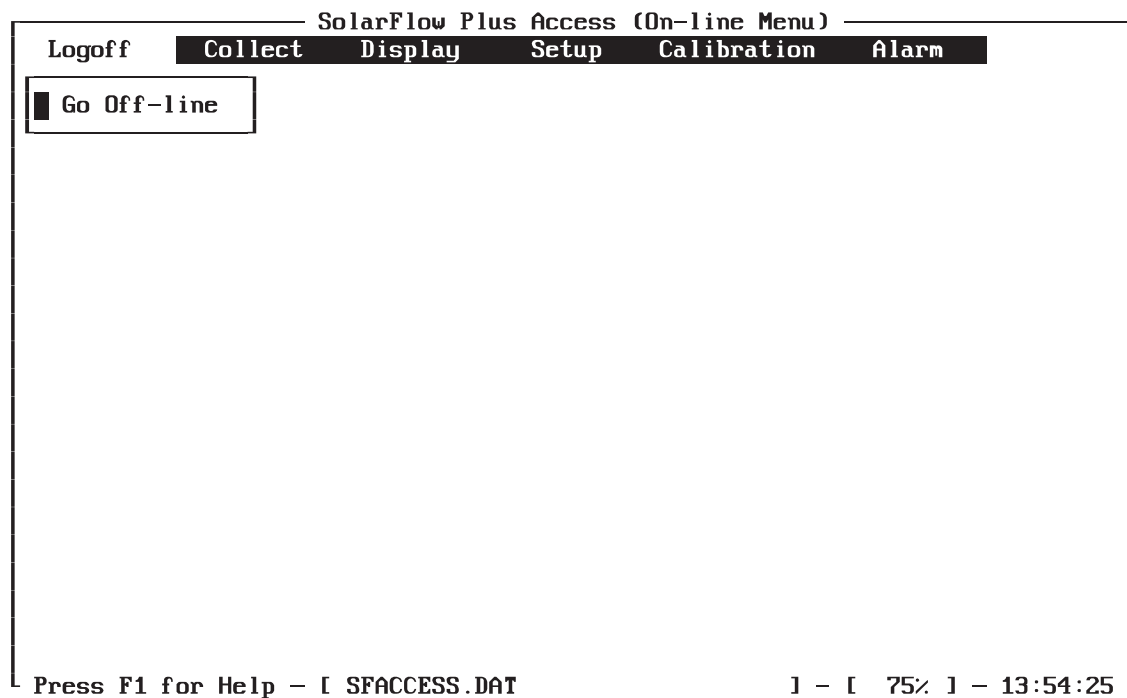
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SOLARFLOW PLUS MAIN MENU CONTENTS

Section 4 describes and explains the contents of the SOLARFLOW PLUS MAIN MENU ("On-line" MAIN MENU) in the same manner as Section 3 addressed the contents of the PC MAIN MENU ("Off-line" MAIN MENU). However, as was previously explained in detail in Section 3, in order to access the SOLARFLOW PLUS computer, the user must first use the "Off-line" MAIN MENU's "Logon" option, which is shown in the following illustration.

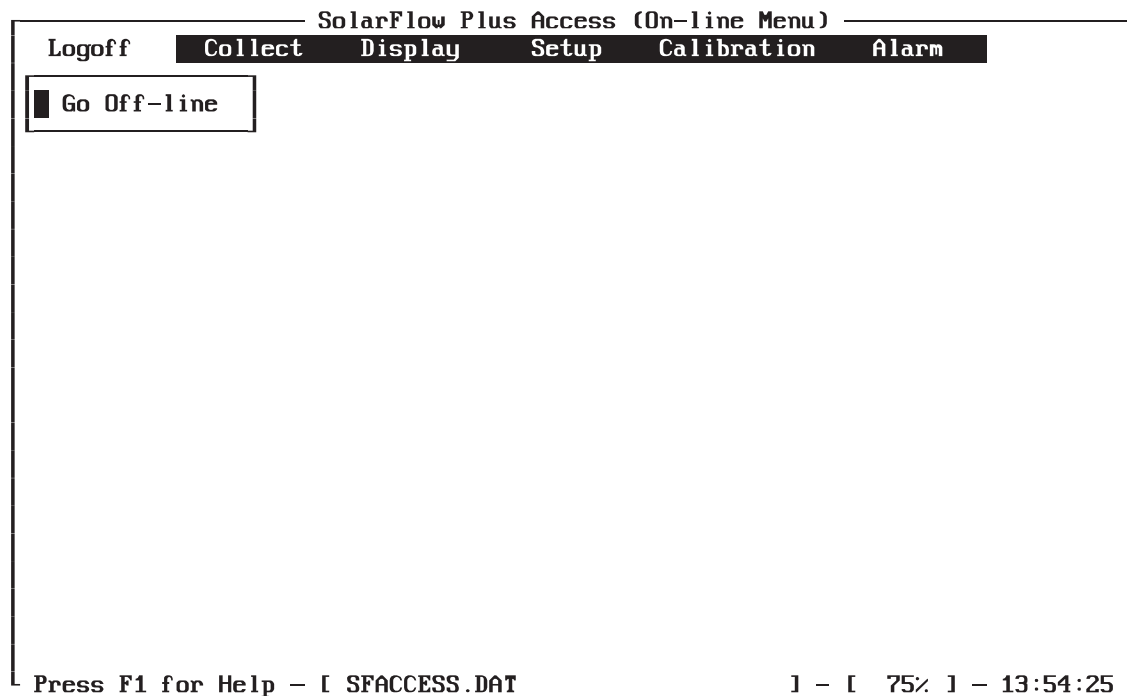


After the SOLARFLOW PLUS computer has been successfully accessed, the "On-line" MAIN MENU will appear, as shown in the following illustration. As indicated, there are six menu options, which include the Logoff, Collect, Display, Setup, Calibration and Alarm options. Since all six options contain at least some form of sub-menu, sub-menu option, or selection screen, most will be segregated, examined and explained in separate sub-sections of this section (Section 4). However, since the "Setup" option has already been fully explained in Section 2, no further examination or discussion is necessary.



THE "LOGOFF" OPTION

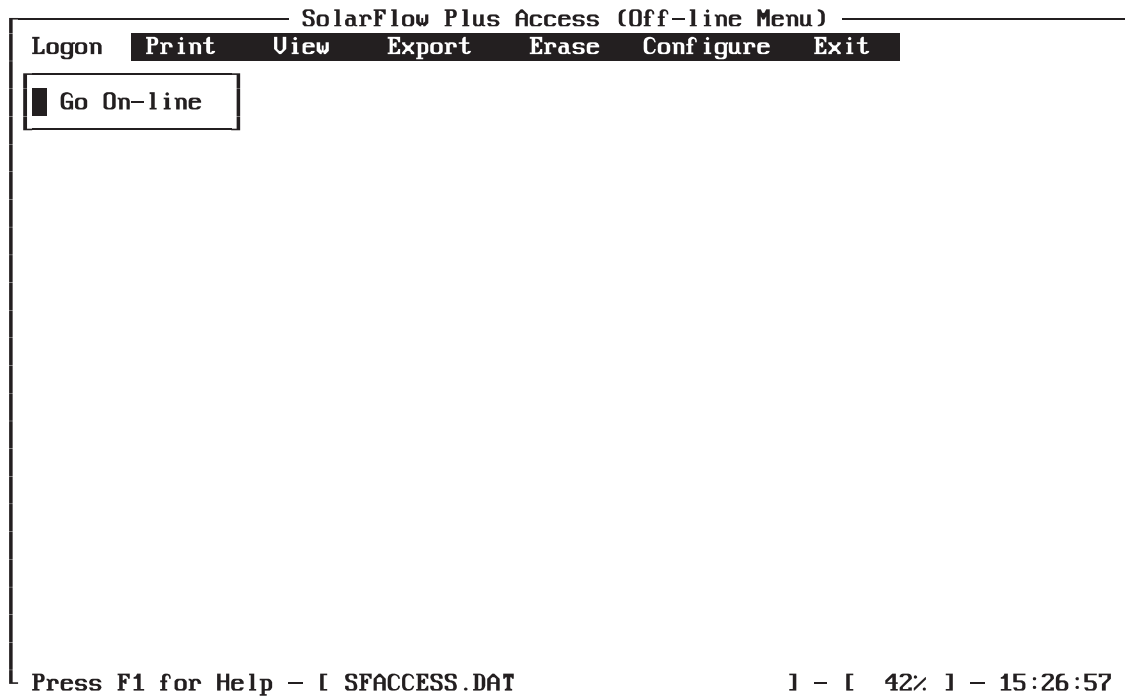
The "Logoff" option, which is shown in the following illustration, is the first of the six "On-line" MAIN MENU options. It contains one main sub-option, which is the "Go Off-line" option, that allows the user to logoff from the SOLARFLOW PLUS computer, and return to the PC MAIN MENU ("Off-line" MAIN MENU).



The "Go Off-line" Option

At the "Go Off-line" option,

- press the ENTER key to return to the PC MAIN MENU ("Off-line" MAIN MENU), which is shown in the following illustration.



THE "COLLECT" OPTION

The "Collect" option, which is shown in the following illustration, is the second of the six "On-line" MAIN MENU options. It contains four main sub-options, which include the "Update Since Last Collection" option, "the Specified Number of Days" option, the "Specified Date Range" option, and the "All Stored Information" option. These options allow for the collection of Event, Data, and Miscellaneous logs, and various configuration and channel information over selected periods of time. This data is then sent to the database file previously specified by the user in the "Configuration" option of the "Off-line" MAIN MENU.



NOTE: SFACCESS allows more options than the HAND HELD DATA TERMINAL when collecting and manipulating SOLARFLOW PLUS data. For example, the "Specified Date Range" option, which is available on SFACCESS, is not available on the HAND HELD DATA TERMINAL.

SFACCESS

The "Update Since Last Collection" Option

The first of the four options available within the "On-line" MAIN MENU "Collect" option is the "Update Since Last Collection" option.

At the "Update Since Last Collection" option,

- press the ENTER key to display a COLLECT screen, as shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
  Logoff Collect Display Setup Calibration Alarm
      Update Since Last Collection
      Update Since Last Collection
  Collecting Data Log Information Status: WORKING
  Event Logs: First Log Collected Last Log Collected Num Logs Collected
               01/01/1980 00:00:00 - 08/21/1992 10:03:34 20
  Data Logs:  08/19/1992 14:00:00 - 08/20/1992 21:00:00 32
  Misc:
  Press ESC to abort...
Press F1 for Help - [ SFACCESS.DAT ] - [ 77% ] - 10:04:20
```

As shown in the last illustration, after the COLLECT screen appears, a "WORKING" message is displayed in a status field in the upper right corner of the screen. In addition to this status field, the COLLECT screen also displays other status fields, which provide additional messages as the collection process is completed for the Event, Data, and Miscellaneous logs. Included are

- three status fields to the right of "Event Logs:", which are respectively from left to right, a field for indicating the first Event log found, since the last log collection, a field for indicating the last Event log found, since the last log collection, and the number of Event logs found, since the last log collection
- three status fields to the right of "Data Logs:", which are respectively from left to right, a field for indicating the first Data log found, since the last log collection, a field for indicating the last Data log found, since the last log collection, and the number of Data logs found, since the last log collection
- one status field to the right of "Misc:" (Miscellaneous), which briefly displays the tag names in the Miscellaneous logs as each is sequentially accessed.

SFACCESS

After the COLLECT screen appears, and the "WORKING" message is displayed to indicate that the collection of log information is in progress since the last log collection, the user may "Press ESC (Escape) to abort. . ." the process. If the ESC (Escape) key is pressed, an "ABORT" message is displayed in the status field in the upper right corner of the screen, as shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

Logoff

Collect

Display

Setup

Calibration

Alarm

Update Since Last Collection

Update Since Last Collection

Collecting

Data

Log Information

Status:

ABORT

	First Log Collected		Last Log Collected	Num Logs Collected
Event Logs:	08/21/1992 10:04:26	-	08/21/1992 10:06:45	2
Data Logs:		-		0

Misc:

Press any key to continue...

Press F1 for Help - I SFACCESS.DAT

I - I 77% I - 10:07:58

After the collection process has been aborted, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

However, if the log collection process is allowed to continue without interruption, a "FINISHED" message is displayed in the status field in the upper right corner of the screen, which is shown in the following illustration. This message indicates that the log collection process has been completed, and the collected data has been sent to the database file previously specified by the user in the "Configuration" option of the "Off-line" MAIN MENU.

SolarFlow Plus Access (On-line Menu)

Logoff
Collect
Display
Setup
Calibration
Alarm

Update Since Last Collection

Update Since Last Collection

Collecting
Misc.
Log Information
Status: COMM ERR

	First Log Collected	-	Last Log Collected	Num Logs Collected
Event Logs:	08/21/1992 10:08:35	-	08/21/1992 10:09:32	2
Data Logs:	08/20/1992 22:00:00	-	08/21/1992 10:00:00	13

Misc: Meter Pressure 1 / Low

Press any key to continue...

Press F1 for Help - [SFACCESS.DAT
1 - [77% 1 - 10:10:29

After the collection process has finished, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

SFACCESS

The "Specified Number of Days" Option

The second of the four options available within the "On-line" MAIN MENU "Collect" option is the "Specified Number of Days" option.

At the "Specified Number of Days" option

- press the ENTER key to display a COLLECT SETUP screen, as shown in the following illustration.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a horizontal bar contains the menu options: Logoff, Collect, Display, Setup, Calibration, and Alarm. The 'Collect' option is currently selected. Below this bar, a sub-menu is visible with four options: Update Since Last Collection, Specified Number of Days, Specified Date Range, and All Stored Information. The 'Specified Number of Days' option is highlighted. Below this sub-menu, the 'Collect Setup' screen is shown. It features a label 'Number of days to collect:' followed by the value '14'. At the bottom of the setup screen, it indicates 'ENTER/F10: Begin Collection' and 'ESC: Abort'. The bottom status bar of the interface shows 'Press F1 for Help - [SFACCESS.DAT' on the left and '1 - [77% 1 - 10:50:35' on the right.

After the COLLECT SETUP screen appears,

- enter the number of days of log data to be collected in the "Number of days to collect:" field, and
- press either the ENTER key, or the F10 key to begin the collection process, or
- press the ESC (Escape) key to abort the collection process.

SFACCESS

After the ENTER key, or the F10 key is pressed to begin the data collection process,

- a COLLECT screen is displayed, as shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

LogoffCollectDisplaySetupCalibrationAlarm

Update Since Last Collection

Collect Specified Number of Days

CollectingEventLog InformationStatus:WORKING

	First Log Collected		Last Log Collected	Num Logs Collected
Event Logs:	08/21/1992 10:10:10	-	08/21/1992 10:50:55	5
Data Logs:		-		0

Misc:

Press ESC to abort...

Press F1 for Help - [SFACCESS.DAT

1 - [77% 1 - 10:51:15

As shown in the last illustration, after the COLLECT screen appears, a "WORKING" message is displayed in a status field in the upper right corner of the screen. In addition to this status field, the COLLECT screen also displays other status fields, which provide additional messages as the collection process is completed for the Event, Data, and Miscellaneous logs. Included are

- three status fields to the right of "Event Logs:", which are respectively from left to right, a field for indicating the first Event log found in the number of days specified, a field for indicating the last Event log found in the number of days specified, and the number of Event logs found in the number of days specified
- three status fields to the right of "Data Logs:", which are respectively from left to right, a field for indicating the first Data log found in the number of days specified, a field for indicating the last Data log found in the number of days specified, and the number of Data logs found in the number of days specified
- one status field to the right of "Misc:" (Miscellaneous), which briefly displays the tag names in the Miscellaneous logs as each is sequentially accessed.

SFACCESS

After the COLLECT screen appears, and the "WORKING" message is displayed to indicate that the collection of log information is in progress for the specified number of days, the user may "Press ESC (Escape) to abort. . ." the process. If the ESC (Escape) key is pressed, an "ABORT" message is displayed in the status field in the upper right corner of the screen, as shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
-----
Logoff  Collect  Display  Setup  Calibration  Alarm
-----
      Update Since Last Collection
-----
      Collect Specified Number of Days
-----
Collecting Data  Log Information  Status:  ABORT
-----
Event Logs:  First Log Collected  Last Log Collected  Num Logs
              08/21/1992 10:10:10  - 08/21/1992 10:50:55  Collected
Data Logs:   -                               0
Misc:
Press any key to continue...

Press F1 for Help - [ SFACCESS.DAT          ] - [ 77% ] - 10:51:29

```

After the collection process has been aborted, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

However, if the log collection process for the specified number of days is allowed to continue without interruption, a "FINISHED" message is displayed in the status field in the upper right corner of the screen, which is shown in the following illustration. This message indicates that the log collection process has been completed, and the collected data has been sent to the database file previously specified by the user in the "Configuration" option of the "Off-line" MAIN MENU.

```

      SolarFlow Plus Access (On-line Menu)
┌───────────┴───────────┐
│ Logoff  Collect  Display  Setup  Calibration  Alarm  │
├───────────┴───────────┤
│ Update Since Last Collection │
├───────────┴───────────┤
│ Collect Specified Number of Days │
├───────────┴───────────┤
│ Collecting Misc. Log Information Status: FINISHED │
├───────────┴───────────┤
│                               Num Logs │
│                               Collected │
├───────────┴───────────┤
│ Event Logs: First Log Collected Last Log Collected │
│ 08/21/1992 10:52:12 - 08/21/1992 10:52:12 │ 1 │
├───────────┴───────────┤
│ Data Logs: 08/21/1992 10:00:00 - │ 0 │
├───────────┴───────────┤
│                               │
├───────────┴───────────┤
│ Misc: Low Flow Cutoff Limit │
├───────────┴───────────┤
│                               │
├───────────┴───────────┤
│ Press any key to continue... │
├───────────┴───────────┤
└───────────┴───────────┘

Press F1 for Help - [ SFACCESS.DAT ] - [ 77% ] - 10:54:18
```

After the collection process has finished, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

SFACCESS

The "Specified Date Range" Option

The third of the four options available within the "On-line" MAIN MENU "Collect" option is the "Specified Date Range" option.

At the "Specified Date Range" option

- press the ENTER key to display a COLLECT SETUP screen, as shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

LogoffCollectDisplaySetupCalibrationAlarm

Update Since Last Collection

Specified Number of Days

Specified Date Range

All Stored Information

Collect Setup

Beginning date/time: 01/01/80 00:00

Ending date/time: 08/21/92 10:55

F10: Begin Collection ESC: Abort

Press F1 for Help - [SFACCESS.DAT

1 - [77% 1 - 10:54:38

After the COLLECT SETUP screen appears,

- enter the beginning date for the log data that is to be collected in the highlighted field in the "Beginning date/time" line,
- use the ENTER key to move to, highlight and select the second field in the "Beginning date/time" line, and enter the beginning time for the log data that is to be collected
- use the ENTER key to move to, highlight and select the first field in the "Ending date/time" line, and enter the ending date for the log data that is to be collected
- use the ENTER key to move to, highlight and select the second field in the "Ending date/time" line, and enter the ending time for the log data that is to be collected, and
- press the F10 key to begin the collection process, or
- press the ESC (Escape) key to abort the collection process.

SFACCESS

After the F10 key is pressed to begin the data collection process,

- a COLLECT screen is displayed, as shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

LogoffCollectDisplaySetupCalibrationAlarm

Update Since Last Collection

Collect Specified Date Range

CollectingDataLog InformationStatus:WORKING

	First Log Collected		Last Log Collected	Num Logs Collected
Event Logs:	08/21/1992 10:53:43	-	08/21/1992 10:53:43	1
Data Logs:		-		0

Misc:

Press ESC to abort...

Press F1 for Help - [SFACCESS.DAT1 - [77%] - 10:55:38

As shown in the last illustration, after the COLLECT screen appears, a "WORKING" message is displayed in a status field in the upper right corner of the screen. In addition to this status field, the COLLECT screen also displays other status fields, which provide additional messages as the collection process is completed for the Event, Data, and Miscellaneous logs. Included are

- three status fields to the right of "Event Logs:", which are respectively from left to right, a field for indicating the first Event log found in the date range specified, a field for indicating the last Event log found in the date range specified, and the number of Event logs found in the date range specified
- three status fields to the right of "Data Logs:", which are respectively from left to right, a field for indicating the first Data log found in the date range specified, a field for indicating the last Data log found in the date range specified, and the number of Data logs found in the date range specified
- one status field to the right of "Misc:" (Miscellaneous), which briefly displays the tag names in the Miscellaneous logs as each is sequentially accessed.

SFACCESS

After the COLLECT screen appears, and the "WORKING" message is displayed to indicate that the collection of log information is in progress for the specified date range, the user may "Press ESC (Escape) to abort. . ." the process. If the ESC (Escape) key is pressed, an "ABORT" message is displayed in the status field in the upper right corner of the screen, as shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
-----
Logoff  Collect  Display  Setup  Calibration  Alarm
-----
      Update Since Last Collection
-----
      Collect Specified Date Range
-----
Collecting Data  Log Information  Status:  ABORT
-----
Event Logs:  First Log Collected  Last Log Collected  Num Logs
              08/21/1992 10:56:44  - 08/21/1992 10:56:44  Collected
Data Logs:   -                               0
Misc:
Press any key to continue...

Press F1 for Help - I SFACCESS.DAT          I - I 77% I - 10:57:15

```

After the collection process has been aborted, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

However, if the log collection process for the specified date range is allowed to continue without interruption, a "FINISHED" message is displayed in the status field in the upper right corner of the screen, which is shown in the following illustration. This message indicates that the log collection process has been completed, and the collected data has been sent to the database file previously specified by the user in the "Configuration" option of the "Off-line" MAIN MENU.

```

      SolarFlow Plus Access (On-line Menu)
  Logoff Collect Display Setup Calibration Alarm
  Update Since Last Collection
  Collect Specified Date Range
  Collecting Misc. Log Information Status: FINISHED
  First Log Collected Last Log Collected Num Logs
  Event Logs: 08/21/1992 10:57:31 - 08/21/1992 10:58:15 2
  Data Logs: 08/21/1992 10:00:00 - 0
  Misc: Low Flow Cutoff Limit
  Press any key to continue...
  Press F1 for Help - [ SFACCESS.DAT ] - [ 77% ] - 11:00:37
  
```

After the collection process has finished, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

SFACCESS

The "All Stored Information" Option

The last of the four options available within the "On-line" MAIN MENU "Collect" option is the "All Stored Information" option.

At the "All Stored Information" option

- press the ENTER key to display a COLLECT screen, which is shown in the following illustration. This screen indicates the data collection process of all stored information has begun.

```
SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
Update Since Last Collection
Collect All
Collecting Data Log Information Status: WORKING
First Log Collected Last Log Collected Num Logs
Event Logs: 08/21/1992 10:59:09 - 08/21/1992 11:00:10 2
Data Logs: - 0
Misc:
Press ESC to abort...
Press F1 for Help - [ SFACCESS.DAT ] - [ 77% ] - 11:01:30
```

As shown in the last illustration, after the COLLECT screen appears, a "WORKING" message is displayed in a status field in the upper right corner of the screen. In addition to this status field, the COLLECT screen also displays other status fields, which provide additional messages as the collection process is completed for the Event, Data, and Miscellaneous logs. Included are

- three status fields to the right of "Event Logs:", which are respectively from left to right, a field for indicating the first Event log found in the collection of all stored information, a field for indicating the last Event log found in the collection of all stored information, and the number of Event logs found in the collection of all stored information
- three status fields to the right of "Data Logs:", which are respectively from left to right, a field for indicating the first Data log found in the collection of all stored information, a field for indicating the last Data log found in the collection of all stored information, and the number of Data logs found in the collection of all stored information
- one status field to the right of "Misc:" (Miscellaneous), which briefly displays the tag names in the Miscellaneous logs as each is sequentially accessed.

SFACCESS

After the COLLECT screen appears, and the "WORKING" message is displayed to indicate that the collection of all stored information is in progress, the user may "Press ESC (Escape) to abort. . ." the process. If the ESC (Escape) key is pressed, an "ABORT" message is displayed in the status field in the upper right corner of the screen, as shown in the following illustration.

```

      SolarFlow Plus Access (On-line Menu)
Logoff  Collect  Display  Setup  Calibration  Alarm
      Update Since Last Collection
      Collect All
Collecting Data  Log Information  Status:  ABORT
      First Log Collected  Last Log Collected  Num Logs
Event Logs: 08/21/1992 10:59:09 - 08/21/1992 11:00:10 2
Data Logs: 08/19/1992 20:00:00 - 0 0
Misc:
Press any key to continue...

Press F1 for Help - [ SFACCESS.DAT 1 - [ 77% 1 - 11:01:49 ]
```

After the collection process has been aborted, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

However, if the log collection process for all stored information is allowed to continue without interruption, a "FINISHED" message is displayed in the status field in the upper right corner of the screen, which is shown in the following illustration. This message indicates that the log collection process has been completed, and the collected data has been sent to the database file previously specified by the user in the "Configuration" option of the "Off-line" MAIN MENU.

```

      SolarFlow Plus Access (On-line Menu)
Logoff  Collect  Display  Setup  Calibration  Alarm
      Update Since Last Collection
      Collect All
Collecting Misc. Log Information Status: FINISHED
      First Log Collected      Last Log Collected      Num Logs
Event Logs: 08/21/1992 11:02:43 - 08/21/1992 11:02:43 1
Data Logs:  08/21/1992 11:00:00 - 08/21/1992 11:00:00 1
Misc: Low Flow Cutoff Limit
      Press any key to continue...

Press F1 for Help - [ SFACCESS.DAT ] - [ 77% ] - 11:04:08
```

After the collection process has finished, the user must

- "Press any key to continue. . ." using the "On-line" MAIN MENU.

THE "DISPLAY" OPTION

The "Display" option, which is shown in the following illustration, is the third of the six "On-line" MAIN MENU options. In this application, it contains thirteen main sub-options, which include the "General Information" option, the "Security Code List" option, the "User Report Definition" option, the "Communication Configuration" option, the "Data Log Definition" option, the "Analog Inputs" option, the "Status Inputs" option, the "Control Outputs" option, the "Scale Values" option, the "Rates and Volumes" option, the "Calculation Configuration" option, the "Alarm Configuration" option, and the "Calculation Factors" option. The "Setup" option allows for the viewing of the various setup parameters and calculated values in the SOLARFLOW PLUS. As necessary, some of these displayed values, which may change in real-time, are updated continuously. Also, as the name implies, this menu, and its associated options, are for information only, and cannot be directly changed by the user.



NOTE: The "Display" option menu shown in the last illustration is for a specific application. This menu list, along with its associated options, may vary depending on the application installed in the SOLARFLOW PLUS.

SFACCESS

The "General Information" Option

The first of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "General Information" option.

At the "General Information" option,

- press the ENTER key to display the DISPLAY - GENERAL INFORMATION screen, which is shown in the following illustration. This screen indicates the values for the location and unit names, the location and unit ID numbers, the current date and time, and the calculation module for the SOLARFLOW PLUS currently logged on.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a menu bar contains the options: Logoff, Collect, Display, Setup, Calibration, and Alarm. The 'Display' option is selected, leading to a sub-menu with General Information, Security Code List, and User Report Definition. The 'General Information' option is selected, resulting in the 'Display - General Information' screen. This screen shows the following data: Location Name (BLANK LOCATION), Location ID Number (0), Unit Name (BLANK UNIT), Unit ID Number (BLANK-ID), Date (08/24/92), Time (13:45:46), and Calculation Module (AGA3 DUAL STD). At the bottom of the screen, there is a status bar with the text 'Press F1 for Help - [SFACCESS.DAT] - [49%] - 13:45:19'.

```
SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm

General Information
Security Code List
User Report Definition

Display - General Information

Location Name BLANK LOCATION Unit Name BLANK UNIT
Location ID Number 0 Unit ID Number BLANK-ID

Date 08/24/92 Time 13:45:46

Calculation Module AGA3 DUAL STD

ESC/F10: Done

Press F1 for Help - [ SFACCESS.DAT ] - [ 49% ] - 13:45:19
```

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

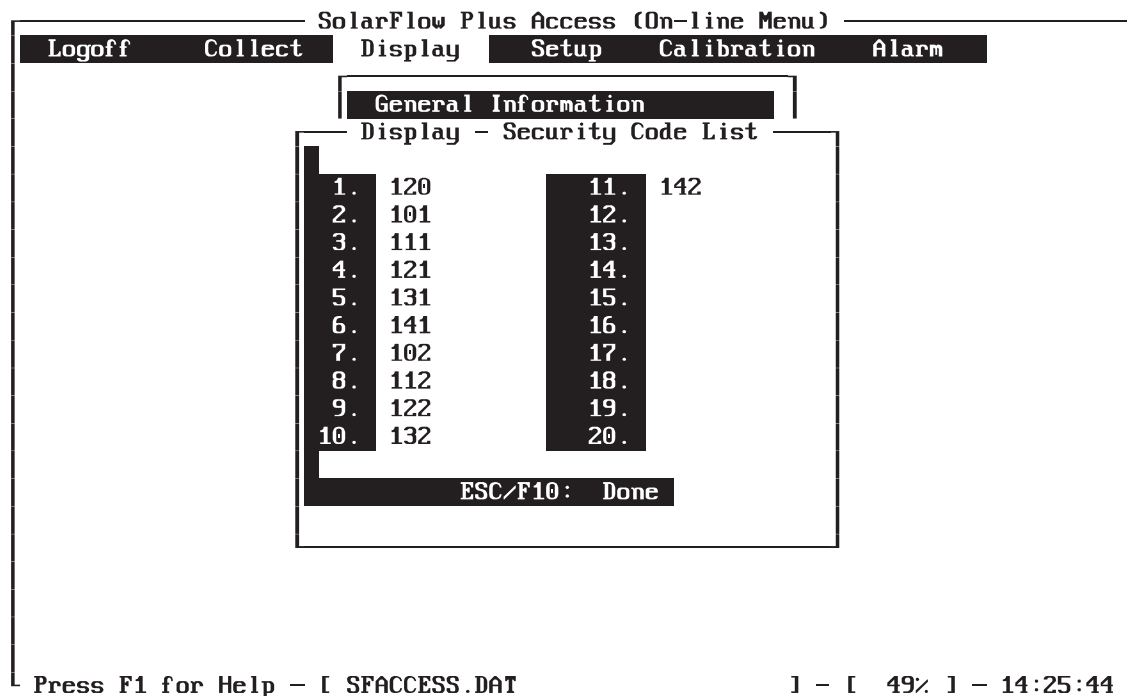
The "Security Code List" Option

The second of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Security Code List" option.

At the "Security Code List" option,

- press the ENTER key to display the DISPLAY - SECURITY CODE LIST screen, which is shown in the following illustration.

This screen indicates the security code or codes for the SOLARFLOW PLUS unit currently logged on.



After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

SFACCESS

The "User Report Definition" Option

The third of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "User Report Definition" option.

At the "User Report Definition" option,

- press the ENTER key to display the DISPLAY - USER REPORT DEFINITION screen, which is shown in the following illustration.

This screen indicates the user reports defined for the SOLARFLOW PLUS unit currently logged on.

```
SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
Display - User Report Definition
Channel Description
1. Meter Pressure 1
2. Differential Pressure 1
3. Meter Temperature
4. Meter Pressure 2
5. Differential Pressure 2
6. Live Specific Gravity
7. Hourly Flow Rate 1
8. Total Accumulated Volume 1
9. Hourly Flow Rate 2
10. Total Accumulated Volume 2
11. Today's Volume
12. Yesterday's Volume
13.
14.
15.
ESC/F10: Done
Press F1 for Help - [ SFACCESS.DAT ] - [ 49% ] - 14:26:04
```

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Communication Configuration" Option

The fourth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Communication Configuration" option.

At the "Communication Configuration" option,

- press the ENTER key to display the DISPLAY - COMMUNICATION CONFIGURATION screen, which is shown in the following illustration. This screen indicates the protocol communication baud rate, and the RTS delay value for the SOLARFLOW PLUS unit currently logged on.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a horizontal bar contains the title "SolarFlow Plus Access (On-line Menu)" and a row of menu options: "Logoff", "Collect", "Display", "Setup", "Calibration", and "Alarm". Below this, a vertical list of options is shown, with "Communication Configuration" highlighted. The "Display - Communication Configuration" screen is displayed, showing "Protocol Communication Rate" set to "300 Baud" and "RTS Delay" set to "0 1/100th Seconds". At the bottom of this screen, it says "ESC/F10: Done". The bottom status bar of the terminal window shows "Press F1 for Help - [SFACCESS.DAT" on the left and "1 - [49% 1 - 14:26:30" on the right.

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

SFACCESS

The "Data Log Definition" Option

The fifth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Data Log Definition" option.

At the "Data Log Definition" option,

- press the ENTER key to display the DISPLAY - DATA LOG DEFINITION screen, which is shown in the following illustration.

This screen indicates the data log defines for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)

Logoff Collect Display Setup Calibration Alarm

General Information

Display - Data Log Definition

Contract Hour 7 Data Logging Interval 1 Hour

	Channel Description	Type	Len	Dec	Ex.	Format
1.	Meter Pressure 1	AUG	6	0	XXXXXX	
2.	Differential Pressure 1	AUG	4	1	XXX.X	
3.	Meter Temperature	AUG	4	0	XXXX	
4.	Meter Pressure 2	AUG	6	0	XXXXXX	
5.	Differential Pressure 2	AUG	4	1	XXX.X	
6.	Logged Accumulated Volume 1	SSZ	6	1	XXXXX.X	
7.	Logged Accumulated Volume 2	SSZ	6	1	XXXXX.X	
8.	Today's Volume	SS	8	1	XXXXXXXX.X	
9.	Yesterday's Volume	SS	8	1	XXXXXXXX.X	
10.						

ESC/F10: Done

Press F1 for Help - I SFACCESS.DAT I - I 49% I - 14:26:52

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Analog Inputs" Option

The sixth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Analog Inputs" option.

At the "Analog Inputs" option,

- press the ENTER key to display the DISPLAY - ANALOG INPUTS screen, which is shown in the following illustration.

This screen indicates the values and status of the analog inputs for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)			
Logoff	Collect	Display	Setup Calibration Alarm
General Information Security Code List			
Display - Analog Inputs			
Channel Description	Value	Units	Status
Battery	12.0	Volts	Live
Meter Pressure 1	1575	Psi Gauge	Live
Meter Pressure 2	1575	Psi Gauge	Live
Meter Temperature	158	Degrees F	Live
Differential Pressure 1	117.6	Inches Water	Live
Differential Pressure 2	117.6	Inches Water	Live
Live Specific Gravity	0.757		Live
Analog Input - Channel 26	5.20		Live
ESC/F10: Done			
Press F1 for Help - [SFACCESS.DAT 1 - [49% 1 - 14:29:37			

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Status Inputs" Option

The seventh of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Status Inputs" option.

At the "Status Inputs" option,

- press the ENTER key to display the DISPLAY - STATUS INPUTS screen, which is shown in the following illustration.

This screen indicates the values and status of the inputs for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)

Logoff Collect Display Setup Calibration Alarm

General Information

Display - Status Inputs

Channel Description	Value	Units	Status
Specific Gravity Option	Live		Live
Status Input - Channel 2	On		Live
Status Input - Channel 3	On		Live
Status Input - Channel 4	On		Live
Status Input - Channel 9	On		Live
Status Input - Channel 10	On		Live
Status Input - Channel 16	On		Live
Status Input - Channel 17	On		Live
Status Input - Channel 18	On		Live

ESC/F10: Done

Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:29:56

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Control Outputs" Option

The eighth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Control Outputs" option.

At the "Control Outputs" option,

- press the ENTER key to display the DISPLAY - CONTROL OUTPUTS screen, which is shown in the following illustration.

This screen indicates the ON or OFF values for the control outputs for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)			
Logoff	Collect	Display	Setup Calibration Alarm
General Information			
Display - Control Outputs			
Channel Description	Value	Units	Status
Sampler Output 1	Off		Live
Sampler Output 2	Off		Live
Control Output - Channel 7	Off		Live
Control Output - Channel 8	Off		Live
Control Output - Channel 11	Off		Live
Control Output - Channel 12	Off		Live
Control Output - Channel 13	Off		Live
Control Output - Channel 14	Off		Live
Control Output - Channel 15	Off		Live
ESC/F10: Done			
Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:31:09			

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

SFACCESS

The "Scale Values" Option

The ninth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Scale Values" option.

At the "Scale Values" option,

- press the ENTER key to display the DISPLAY - SCALE VALUES screen, which is shown in the following illustration.

This screen indicates the scale values for the channel descriptions for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)		
Logoff	Collect	Display
Setup	Calibration	Alarm
General Information		
Display - Scale Values		
Channel Description	Value	Units
Meter Pressure 1 / Low	0	Psi Gauge
Meter Pressure 1 / High	1500	Psi Gauge
Meter Pressure 2 / Low	0	Psi Gauge
Meter Pressure 2 / High	1500	Psi Gauge
Meter Temperature / Low	0	Degress F
Meter Temperature / High	150	Degrees F
Differential Pressure 1 / Low	0	Inches Water
ESC/F10: Done		

Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:31:45

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Rates and Volumes" Option

The tenth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Rates and Volumes" option.

At the "Rates and Volumes" option,

- press the ENTER key to display the DISPLAY - RATES AND VOLUMES screen, which is shown in the following illustration.

This screen indicates the rate and volume values for the channel descriptions for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)		
Logoff	Collect	Display
Setup	Calibration	Alarm
General Information		
Display - Rates and Volumes		
Channel Description	Value	Units
Hourly Flow Rate 1	1704.2	Mcf Per Hour
Daily Flow Rate 1	40900.2	Mcf Per Day
Total Accumulated Volume 1	205731.6	Mcf
Hourly Flow Rate 2	1703.6	Mcf Per Hour
Daily Flow Rate 2	40886.8	Mcf Per Day
Total Accumulated Volume 2	205691.7	Mcf
Station Hourly Flow Rate	3407.8	Mcf Per Hour
Station Daily Flow Rate	81787.0	Mcf Per Day
Station Total Accumulated Vol	411432.9	Mcf
Today's Volume	25761.3	Mcf
ESC/F10: Done		

Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:32:59

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

SFACCESS

The "Calculation Configuration" Option

The eleventh of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Calculation Configuration" option.

At the "Calculation Configuration" option,

- press the ENTER key to display the DISPLAY - CALCULATION CONFIGURATION screen, which is shown in the following illustration.

This screen indicates the calculation values for the channel descriptions for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)		
Logoff	Collect	Display
Setup	Calibration	Alarm
General Information		
Display - Calculation Configuration		
Channel Description	Value	Units
Pipe Diameter 1	8.071	Inches
Pipe Diameter 2	8.071	Inches
Orifice Diameter 1	4.000	Inches
Orifice Diameter 2	4.000	Inches
Low Flow Cutoff Limit	2.00	% of Full Scale
Atmospheric Pressure	14.73	Psi Absolute
Pressure Base	14.73	Psi Absolute
Temperature Base	60	Degrees F
Orifice Material	Steel	
Supercompressibility Method	NX-19 Standard	
ESC/F10: Done		
Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:34:21		

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Alarm Configuration" Option

The twelveth of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Alarm Configuration" option.

At the "Alarm Configuration" option,

- press the ENTER key to display the DISPLAY - ALARM CONFIGURATION screen, which is shown in the following illustration. This screen indicates the alarm configurations and setpoint values for the alarm descriptions for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)			
Logoff	Collect	Display	Setup
Calibration	Alarm		
General Information			
Display - Alarm Configuration			
Alarm Description	Value	Units	
Battery Low	- Enable	Enable	
	- Setpoint	10.8	Volts
Meter Pressure 1	- Enable	Enable	
	- Low Setpoint	0	x High Scale
	- High Setpoint	1.01	x High Scale
Meter Pressure 2	- Enable	Enable	
	- Low Setpoint	0	x High Scale
	- High Setpoint	1.01	x High Scale
ESC/F10: Done			

Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:35:33

After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

The "Calculation Factors" Option

The last of the thirteen options available within the "On-line" MAIN MENU "Display" option is the "Calculation Factors" option.

At the "Calculation Factors" option,

- press the ENTER key to display the DISPLAY - CALCULATION FACTORS screen, which is shown in the following illustration.

This screen allows indicates the calculation factor values and status of the channel descriptions for the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)			
Logoff	Collect	Display	Setup Calibration Alarm
General Information			
Display - Calculation Factors			
Channel Description	Value	Units	Status
Basic Orifice Factor 1	3362.9	(Fb 1)	Live
Basic Orifice Factor 2	3362.9	(Fb 2)	Live
Pressure Base Factor	1.0000	(Fpb)	Live
Temperature Base Factor	1.0000	(Ftb)	Live
Gravity Factor	1.1496	(Fg)	Live
Supercompressibility Factor 1	1.1084	(Fpu 1)	Live
Supercompressibility Factor 2	1.1084	(Fpu 2)	Live
Pressure Adjust Factor	0.000		Live
Temperature Adjust Factor	0.000		Live
Reynolds Number Factor 1	1.0001	(Fr 1)	Live
ESC/F10: Done			

Press F1 for Help - [SFACCESS.DAT] - [49%] - 14:36:03

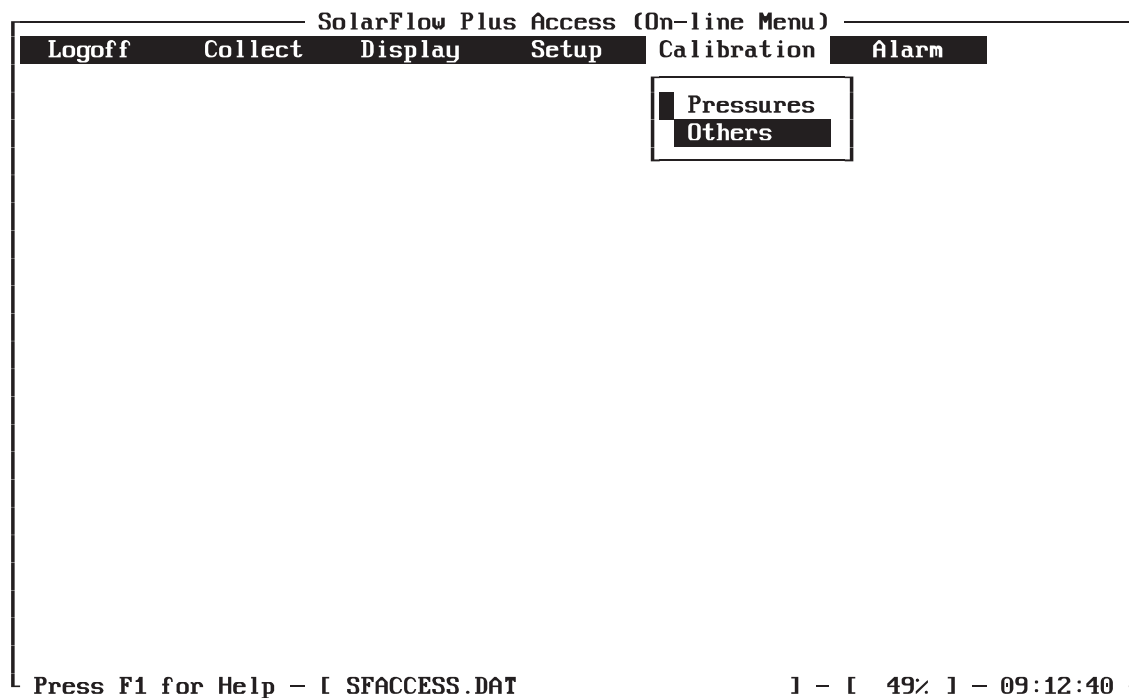
After observing these values, the user must

- press the ESC (Escape) key to continue using the menu.

THE "CALIBRATION" OPTION

The "Calibration" option, which is shown in the following illustration, is the fifth of the six "On-line" MAIN MENU options. It allows the user to monitor and/or calibrate the transmitters in the SOLARFLOW PLUS. In addition, the "Calibration" option contains two main options, which are the "Pressures" and "Others" options.

The "Pressures" sub-option contains all inputs, which are related to pressure, such as differential or static, and the "Others" sub-option contains all inputs, which are not related to pressure.





IMPORTANT: For more complete details about calibration, calibration procedures for specific models and modules, calibration reference devices, etc., refer to the DANIEL INDUSTRIES MODEL 2470 SOLARFLOW PLUS SYSTEM REFERENCE MANUAL, Daniel Part No. 3-9000-451.

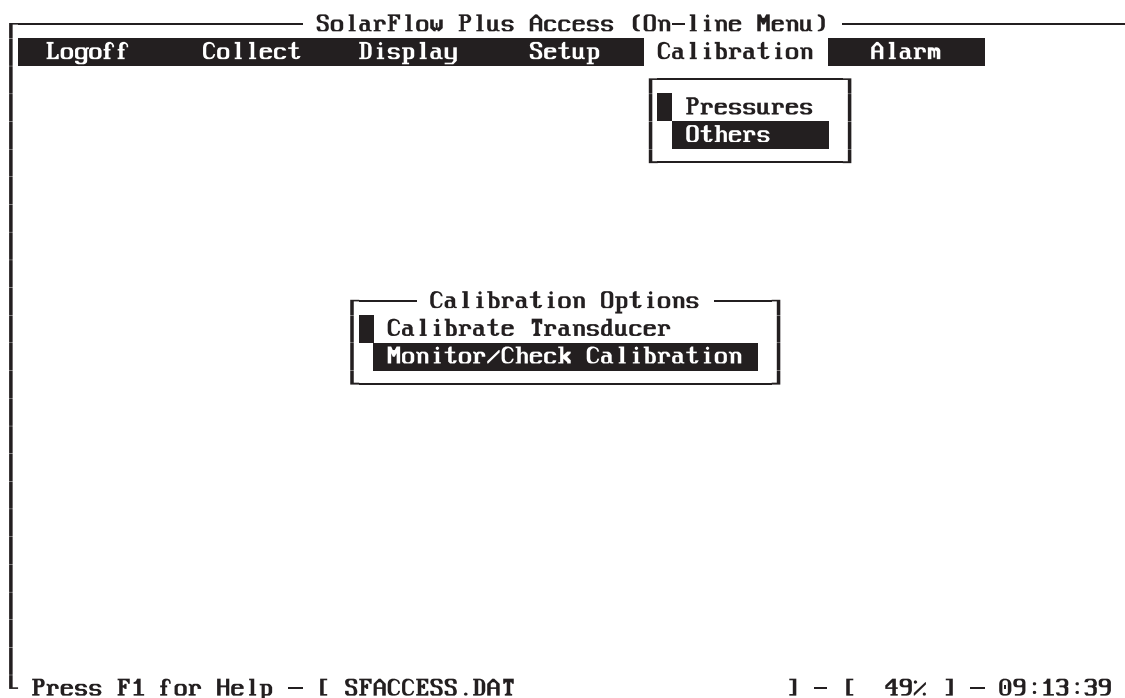
The "Pressures" Option

The first of the two options available within the "On-line" MAIN MENU "Calibration" option is the "Pressures" option.

At the "Pressures" option,

- press the ENTER key to display a CALIBRATION OPTIONS pop-up window, which is shown in the following illustration. This pop-up window lists two further sub-options, which are "Calibrate Transducer" and "Monitor/Check Calibration".

The "Calibrate Transducer" sub-option provides the calibration capabilities, and the "Monitor/Check Calibration" sub-option provides the monitor and calibration check capabilities.



SFACCESS

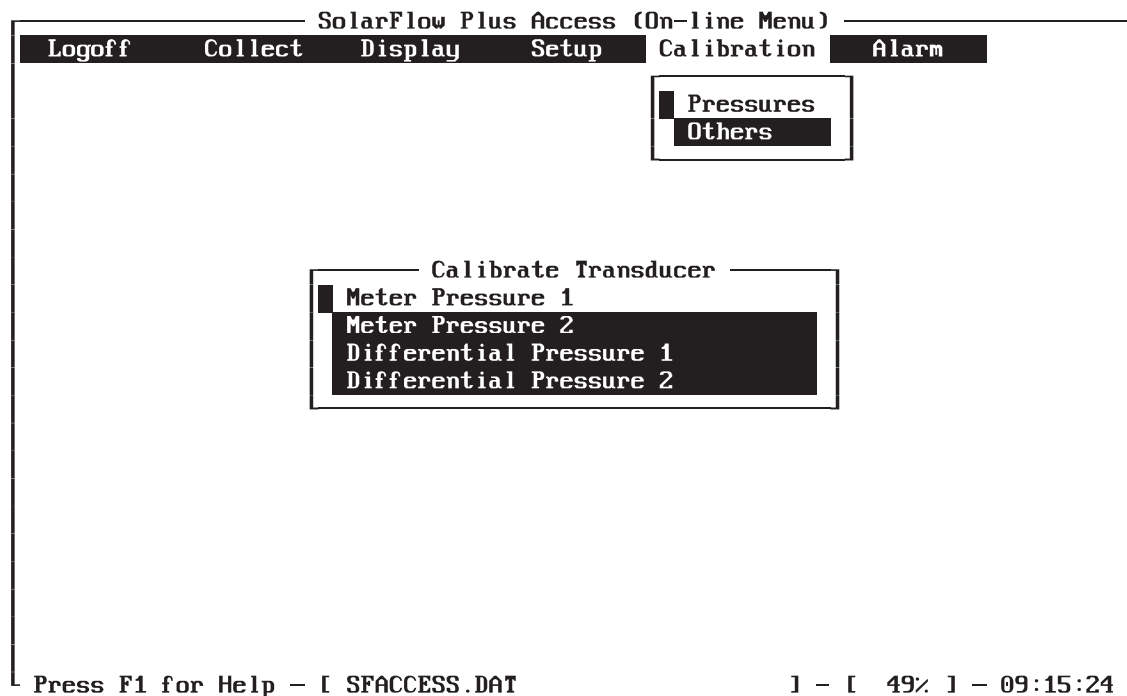
The "Calibrate Transducer"

The first of the two options available within the "Pressures" option is the "Calibrate Transducer".

At the "Calibrate Transducer",

- press the ENTER key to display a CALIBRATE TRANSDUCER screen, as shown in the following illustration.

This CALIBRATE TRANSDUCER screen provides a list of all selectable inputs related to pressures.



The "Meter Pressure 1"

The first of the available pressure inputs for this particular application is "Meter Pressure 1".

To highlight and select the "Meter Pressure 1",

- use the UP and DOWN ARROW keys
- press the ENTER key to display the CALIBRATION screen, which is shown in the following illustration.

This screen allows the user to modify the calibration input values for the "As found" and "Actual" "Zero Set", "Full Set", and "Mid Set" points for the meter pressure in psi of the SOLARFLOW PLUS unit currently logged on.

The screenshot shows a terminal window titled "SolarFlow Plus Access (On-line Menu)". The main menu at the top includes "Logoff", "Collect", "Display", "Setup", "Calibration", and "Alarm". The "Calibration" option is selected, leading to a sub-menu with "Pressures" and "Others". The "Pressures" option is selected, displaying the "Calibration" screen for "Meter Pressure 1 (Psi Gauge)".

	As Found	Actual
Zero Set	1575	
Full Set		
Mid Set		

Press ENTER key to accept value displayed.

At the bottom of the screen, it says "Press F1 for Help - [SFACCESS.DAT" on the left and "1 - [49%] - 09:20:07" on the right.

After the CALIBRATION screen for meter pressure 1 appears, the user has options

- at the "as found"/"Zero Set" field, to press the ENTER key to accept the "Zero Set" value displayed
- at the "actual"/"Zero Set" field, to enter the actual "Zero Set" value, and press the ENTER key
- at the "as found"/"Full Set" field, to press the ENTER key to accept the "Full Set" value displayed
- at the "actual"/"Full Set" field, to enter the actual "Full Set" value, and press the ENTER key
- at the "as found"/"Mid Set" field, to press the ENTER key to accept the "Mid Set" value displayed,
- at the "actual"/"Mid Set" field, to enter the actual "Mid Set" value, and press the ENTER key.

At any point during the calibration of meter pressure 1, the user may

- press the ESC (Escape) key to abort the calibration process, as shown in the following illustration.

SolarFlow Plus Access (On-line Menu)

Logoff Collect Display Setup Calibration Alarm

Pressures Others

Calibration

Meter Pressure 1 (Psi Gauge)

	As Found	Actual
Zero Set	1575	1575
Full Set	1575	
Mid Set		

Calibration Aborted. Press any key...

Press F1 for Help - [SFACCESS.DAT] - [49%] - 08:06:43

If, after completing the calibration process for the meter pressure, the input values either accepted or entered by the user are not within acceptable beginning and end-point parameters, the message, "Calibration Error - Not Accepted. Press any key. . ." (to continue), will appear. This message indicates that the user must adjust the calibration point values within the specified limits.

SFACCESS

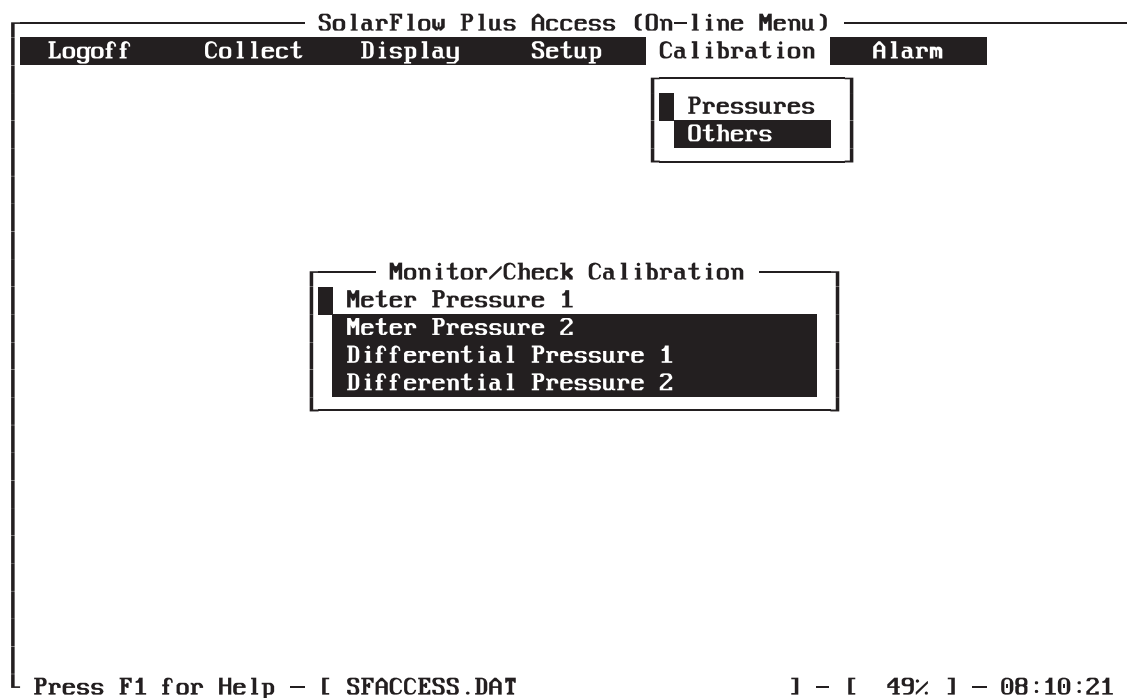
The "Monitor/Check Calibration"

The second of the two options available within the "Pressures" option is the "Monitor/Check Calibration".

At the "Monitor/Check Calibration",

- press the ENTER key to display a MONITOR/CHECK CALIBRATION screen, as shown in the following illustration.

This MONITOR/CHECK CALIBRATION screen provides a list of all selectable inputs related to pressures.



The "Meter Pressure 1"

The first of the available pressure inputs to be monitored/checked for this particular application is "Meter Pressure 1".

To highlight and select the "Meter Pressure 1",

- use the UP and DOWN ARROW keys
- press the ENTER key to display the MONITOR/CHECK CALIBRATION WINDOW screen, which is shown in the following illustration.

This screen allows the user to monitor or check the calibration input value for meter pressure 1 in psi of the SOLARFLOW PLUS unit currently logged on.

The screenshot displays the 'SolarFlow Plus Access (On-line Menu)' interface. At the top, a menu bar includes 'Logoff', 'Collect', 'Display', 'Setup', 'Calibration', and 'Alarm'. Below this, a sub-menu shows 'Pressures' and 'Others'. The main window is titled 'Monitor/Check Calibration Window' and contains the following information:

Meter Pressure 1 (Psi Gauge)		
As Found	Expected	Confirm
1575	0	Yes

At the bottom of the window, instructions are provided: 'F2: Enter Expected Value', 'F10: Done', and 'ESC: Quit'. The status bar at the very bottom reads 'Press F1 for Help - [SFACCESS.DAT] - [49%] - 08:12:16'.

SFACCESS

After the MONITOR/CHECK CALIBRATION WINDOW screen for meter pressure 1 appears, the user has options

- at the "as found" field, to observe the meter pressure 1 value, and if the value is acceptable, to press the F10 key and exit from the screen, or
- at the "as found" field, to press the F2 key to cursor to the "expected" field in order to enter an expected value
- at the "expected" field, to enter an expected value and press the ENTER key to proceed to the "confirm" field
- at the "confirm" field, to press the SPACE BAR and toggle a YES or NO confirmation, or
- at any time, to press the ESC (Escape) key to abort the process.

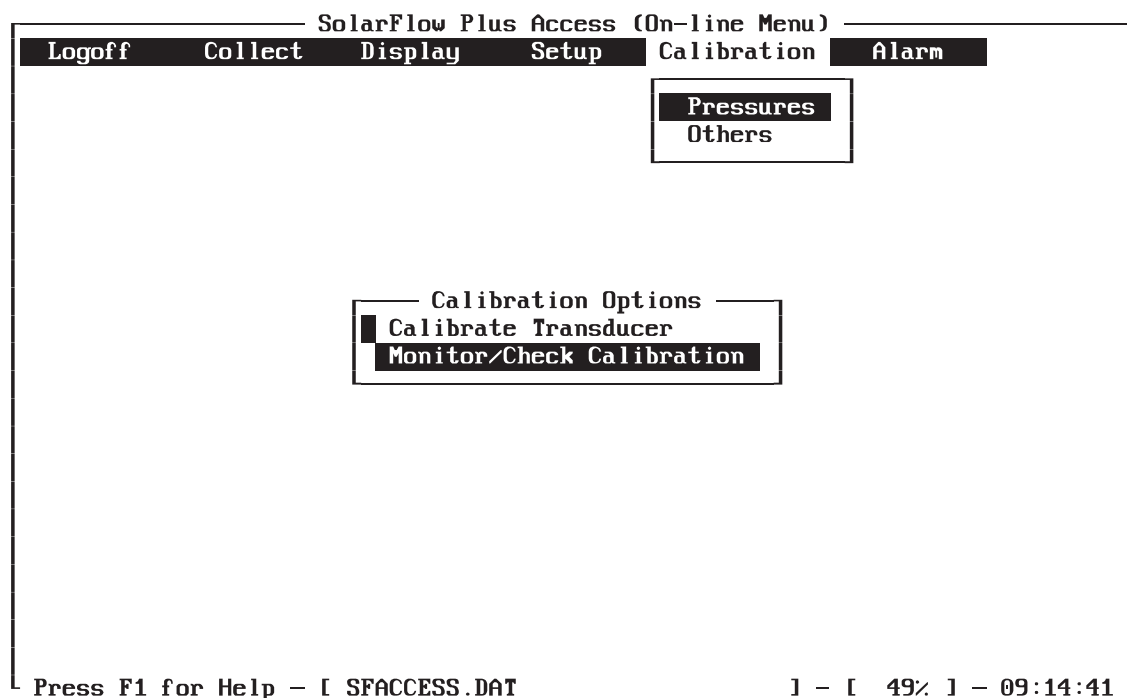
The "Others" Option

The second of the two options available within the "On-line" MAIN MENU "Calibration" option is the "Others" option.

At the "Others" option,

- press the ENTER key to display a CALIBRATION OPTIONS pop-up window, which is shown in the following illustration. This pop-up window lists two further sub-options, which are "Calibrate Transducer" and "Monitor/Check Calibration".

The "Calibrate Transducer" sub-option provides the calibration capabilities, and the "Monitor/Check Calibration" sub-option provides the monitor and calibration check capabilities.



SFACCESS

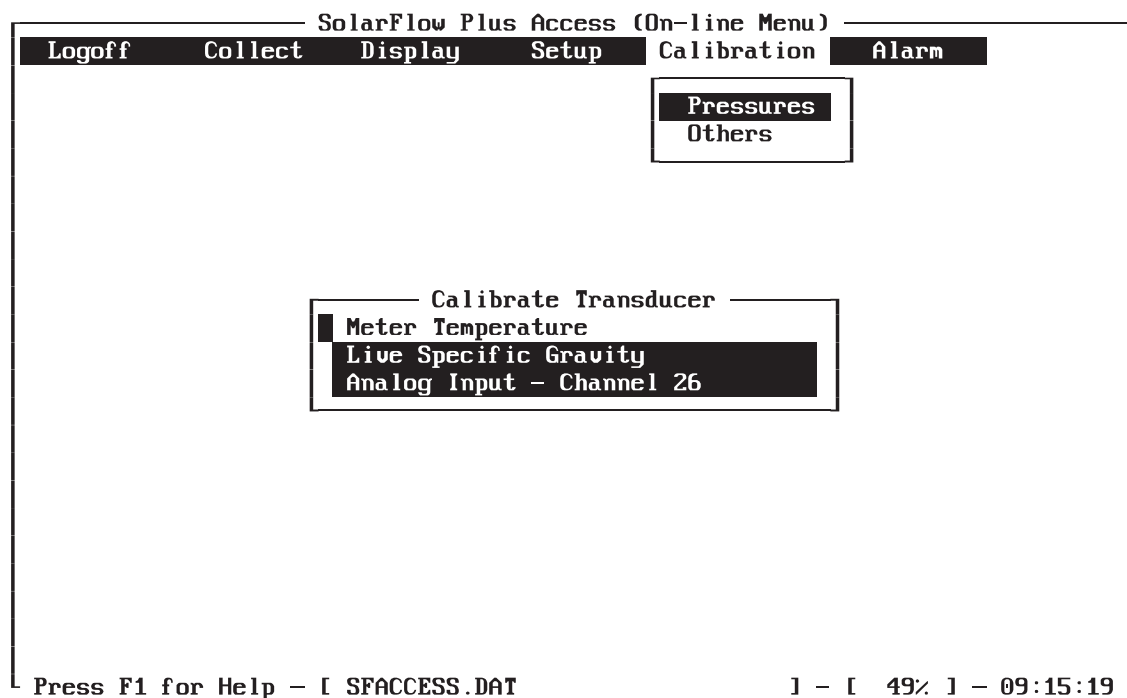
The "Calibrate Transducer"

The first of the two options available within the "Pressures" option is the "Calibrate Transducer".

At the "Calibrate Transducer",

- press the ENTER key to display a CALIBRATE TRANSDUCER screen, as shown in the following illustration.

This CALIBRATE TRANSDUCER screen provides a list of all selectable inputs related to measurements other than pressure.



The "Meter Temperature"

The first of the available measurement inputs for this particular application is "Meter Temperature".

To highlight and select the "Meter Temperature",

- use the UP and DOWN ARROW keys
- press the ENTER key to display the CALIBRATION screen, which is shown in the following illustration.

This screen allows the user to modify the calibration input values for the "As found" and "Actual" "Zero Set", "Full Set", and "Mid Set" points for the meter temperature in degrees Fahrenheit of the SOLARFLOW PLUS unit currently logged on.

SolarFlow Plus Access (On-line Menu)														
Logoff	Collect	Display												
Setup Calibration Alarm														
Pressures Others														
Calibration Meter Temperature (Degrees F) <table border="1"> <thead> <tr> <th></th> <th>As Found</th> <th>Actual</th> </tr> </thead> <tbody> <tr> <td>Zero Set</td> <td>157</td> <td></td> </tr> <tr> <td>Full Set</td> <td></td> <td></td> </tr> <tr> <td>Mid Set</td> <td></td> <td></td> </tr> </tbody> </table>				As Found	Actual	Zero Set	157		Full Set			Mid Set		
	As Found	Actual												
Zero Set	157													
Full Set														
Mid Set														
Press ENTER key to accept value displayed.														
Press F1 for Help - [SFACCESS.DAT 1 - [49%] - 09:15:39														

SFACCESS

After the CALIBRATION screen for meter temperature appears, the user has options

- at the "as found"/"Zero Set" field, to press the ENTER key to accept the "Zero Set" value displayed
- at the "actual"/"Zero Set" field, to enter the actual "Zero Set" value, and press the ENTER key
- at the "as found"/"Full Set" field, to press the ENTER key to accept the "Full Set" value displayed
- at the "actual"/"Full Set" field, to enter the actual "Full Set" value, and press the ENTER key
- at the "as found"/"Mid Set" field, to press the ENTER key to accept the "Mid Set" value displayed,
- at the "actual"/"Mid Set" field, to enter the actual "Mid Set" value, and press the ENTER key.

- ```

SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
Pressures
Others
Calibration
Meter Temperature (Degrees F)
As Found Actual
Zero Set 157
Full Set
Mid Set
Calibration Aborted. Press any key...
Press F1 for Help - [SFACCESS.DAT] - [49%] - 09:20:19

```

If, after completing the calibration process for the meter temperature, the input values either accepted or entered by the user are not within acceptable beginning and end-point parameters, the message, "Calibration Error - Not Accepted. Press any key. . ." (to continue), will appear. This message indicates that the user must adjust the calibration point values within the specified limits.

## SFACCESS

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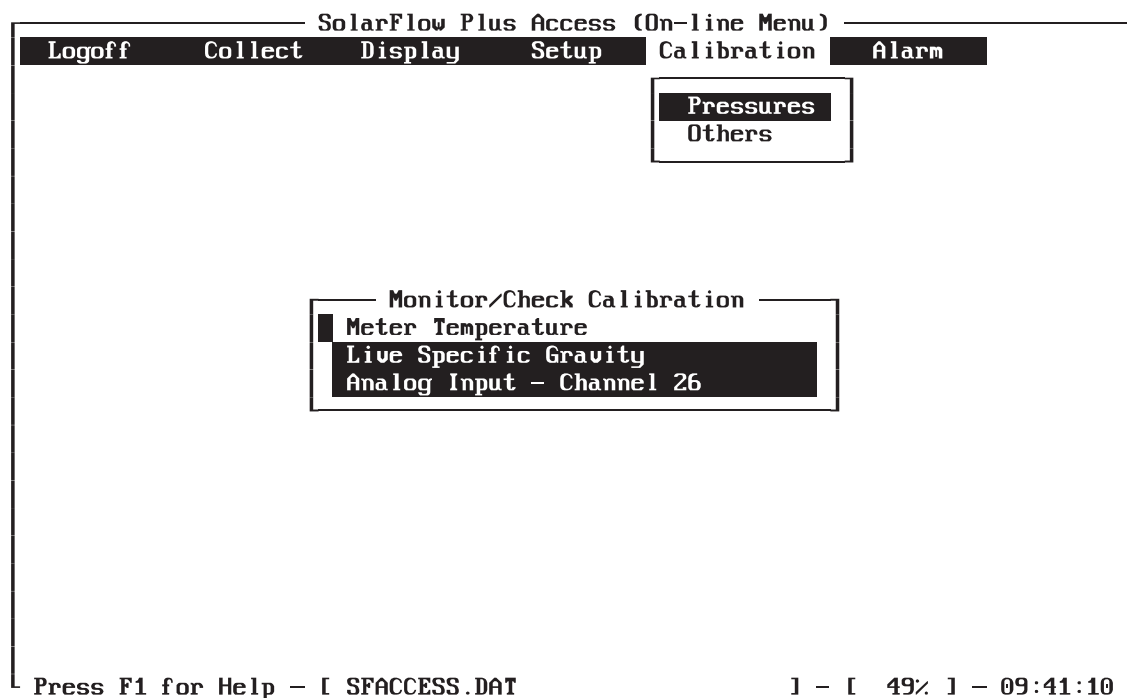
The "Monitor/Check Calibration"

The second of the two options available within the "Others" option is the "Monitor/Check Calibration".

At the "Monitor/Check Calibration",

- press the ENTER key to display a MONITOR/CHECK CALIBRATION screen, as shown in the following illustration.

This MONITOR/CHECK CALIBRATION screen provides a list of all selectable inputs related to pressures.



### The "Meter Temperature"

The first of the available measurement inputs to be monitored/checked for this particular application is "Meter Temperature".

To highlight and select the "Meter Temperature",

- use the UP and DOWN ARROW keys
- press the ENTER key to display the MONITOR/CHECK CALIBRATION WINDOW screen, which is shown in the following illustration.

This screen allows the user to monitor or check the calibration input value for meter temperature in degrees Fahrenheit of the SOLARFLOW PLUS unit currently logged on.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a horizontal menu bar contains the following options: Logoff, Collect, Display, Setup, Calibration, and Alarm. Below this, a sub-menu is visible with 'Pressures' and 'Others'. The main area of the screen is titled 'Monitor/Check Calibration Window'. Inside this window, the text 'Meter Temperature (Degrees F)' is displayed. Below this, a table shows the current calibration status:

| As Found | Expected | Confirm |
|----------|----------|---------|
| 157      | 0        | Yes     |

At the bottom of the window, a status bar provides instructions: 'F2: Enter Expected Value', 'F10: Done', and 'ESC: Quit'. The bottom of the screen shows a footer with the text 'Press F1 for Help - [ SFACCESS.DAT' on the left and '1 - [ 49% ] - 09:25:33' on the right.

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---

After the MONITOR/CHECK CALIBRATION WINDOW screen for meter temperature appears, the user has options

- at the "as found" field, to observe the meter temperature value, and if the value is acceptable, to press the F10 key and exit from the screen, or
- at the "as found" field, to press the F2 key to cursor to the "expected" field in order to enter an expected value
- at the "expected" field, to enter an expected value and press the ENTER key to proceed to the "confirm" field
- at the "confirm" field, to press the SPACE BAR and toggle a YES or NO confirmation, or
- at any time, to press the ESC (Escape) key to abort the process.

## THE "ALARM" OPTION

The "ALARM" option, which is shown in the following illustration, is the last of the six "On-line" MAIN MENU options. It contains one main sub-option, which is the "Acknowledge" option. This option allows the user to scan and acknowledge (or not acknowledge) enabled alarms in the SOLARFLOW PLUS unit currently logged on. The alarm setup, including enabling, disabling, and setpoint adjustment, is performed in the "On-line" MAIN MENU "Setup" option.



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### The "Acknowledge" Option

The one option available within the "On-line" MAIN MENU "Alarm" option is the "Acknowledge" option.

At the "Acknowledge" option

- press the ENTER key to display an ALARM SCAN screen, as shown in the following illustration. In this application under the "Acknowledge" option, there is only one ALARM SCAN screen that is accessed sequentially by pressing the ENTER key. The one ALARM SCAN screen is for the "Meter Pressure # 1". However, the number and identity of the ALARM SCAN screens accessed is determined by how the alarm setup has been configured for the SOLARFLOW PLUS unit.

The screenshot displays the SolarFlow Plus Access (On-line Menu) interface. At the top, a menu bar includes options: Logoff, Collect, Display, Setup, Calibration, and Alarm. The Alarm option is selected, leading to a sub-menu where Acknowledge is highlighted. Below this, the Alarm Scan screen is shown for Meter Pressure 1. It lists the Alarm as Active and prompts for an Action? with Acknowledge selected. Instructions at the bottom of the screen state 'Press SPACE to select action and ENTER'. The footer of the screen shows 'Press F1 for Help - I SFACCESS.DAT' on the left and 'I - I 49% I - 10:14:37' on the right.

```
SolarFlow Plus Access (On-line Menu)
Logoff Collect Display Setup Calibration Alarm
Acknowledge

Alarm Scan
Alarm Meter Pressure 1
Condition Active
Action? Acknowledge
ESC: Quit

Press SPACE to select action and ENTER

Press F1 for Help - I SFACCESS.DAT I - I 49% I - 10:14:37
```

### The First ALARM SCAN Screen

After the first ALARM SCAN screen appears, which in this case is the Meter Pressure 1 ALARM SCAN screen, the user may

- determine the identity of the alarm
- determine whether the alarm is active (acknowledged or not acknowledged), or previously active and not acknowledged
- press the ENTER key to continue, or

If the prompt message reads, "Press ENTER to continue. . .", then the alarm has already been acknowledged, but is active. If the prompt message reads, "Press SPACE. . .", then the user has the opportunity to acknowledge the alarm.

- press the ESC (Escape) key "to quit" the process.

## ASCII EXPORT FILE SPECIFICATIONS

The ASCII export function of the SFACCESS program generates three different types of data files, which are

- data log,
- miscellaneous channel/tags,
- event log.

Each of these files may contain information about one or more locations. The beginning of each location in a file is marked with special blocks containing information about the location and the following data.

The data files are in a "standard" ASCII format, which means

- each line of text is terminated with a carriage return, line feed combination,
- fields on a line are separated by commas,
- and non-numeric fields are quoted.

The three data file types with their individual specifications are

## I. THE DATA LOG FILE

A data log file is organized as a series of blocks of location data:

Location 1  
Location 2  
...  
Location N

Each location in a data log file contains:

Line 1: (Location identifying information)

"\DATA\_LOG\_START", "loc\_name", "loc\_id", "unit\_name", "unit\_id",  
"calc\_module"

Line 2: (Data log definition, etc)

"\DATA\_LOG\_DEFINE", "contract\_hour", log\_interval, chan\_count,  
"def1", "def2", ..., "defN"

where contract\_hour is in the format HH:MM (ex. 07:00),

log\_interval is in minutes (0 to 1440),

chan\_count is the number of channels logged,

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---

def1..n is in the format ":ChnTD"

where Chn is the three digit channel number,

T is the type,

A - Average,

S - Snapshot,

Z - Snapshot and Zero,

D is the number of decimal places to print,

---

**NOTE:** Future revisions of the SFACCESS program will have the tag name, "TagName:ChnTD", inserted in this field. Programs parsing this field must account for this to avoid incompatibility problems later.

---

Line 3: (Column Headings Prefix)

"\DATA\_LOG\_HEAD", "\"

where "\" is intended as a continuation character to the next line. Custom programs actually parsing the data file use this to continue reading to the next physical text line in order to read the labels. The purpose for this continuation is for programs such as Lotus 1-2-3 that put the "Date", "Time", etc. in the same column as the following data.

Line 4: (Column Headings)

"Date", "Time", "Faults", "label\_1", "label\_2", ..., "label\_N"

where label\_1, label\_2, ... are the column heading labels for the logged channels.

Line 5+: (until the next "\\DATA\_LOG\_START")

"date", "time", "fault\_list", value\_1, value\_2, ..., value\_N

where date is "MM/DD/YY".

time is "HH:MM".

fault\_list is a 24 character field corresponding, in order, to the three 8 character "Under Range", "Over Range", and "Misc." fault fields normally appearing on a data log report. Refer to the Model 2480 System Reference Manual (P/N 3-9000-497) paragraph 5.12.3.3 for a detailed explanation of the fault fields.

value\_1, value\_2, ..., value\_N are logged channel values.

## II. THE MISCELLANEOUS CHANNEL/TAGS FILE TYPE

A miscellaneous channel/tags file is organized as a series of blocks of location data:

Location 1  
Location 2  
...  
Location N

Each location in a miscellaneous channel/tags file contains the following:

Line 1: (Location identifying information)

```
"\MISC_TAG_START", "loc_name", "loc_id", "unit_name", "unit_id",
"calc module"
```

Line 2: (Column Headings Prefix)

```
"\MISC_TAG_HEAD", "\"
```

where       "\" is intended as a continuation character to the next line. (Refer the explanation in the data log section above).

Line 3: (Column Headings)

```
"Tag", "Type", "Channel", "Label", "Label", "Value", "Units",
"Fix/Var"
```

Line 4+: (until the next "\\MISC\_TAG\_START")

"tag\_name", "tag\_type", "channel", "long\_label", "short\_label",  
"value", "unit\_label", "fixed\_var\_char"

where "tag\_name" is the channel tag such as "DIFF\_PRES1",  
"LIVE\_SPEC\_GRAV", etc. up to 15 characters in length.

tag\_type is

- DIN (digital input),
- DOUT (digital output),
- AIN (analog input),
- AOUT (analog output),
- ASCALE (analog input/output low or high scale),
- CALC (calculated channel 29+),
- ALARM (alarm enable/disable status or setpoint),
- SPEC (special: items found on general menu in  
SFAccess SETUP and DISPLAY function).

channel is the SolarFlow Plus channel number for tag types DIN, DOUT, AIN, and AOUT; channel number decimal 1 or 2 for analog low and high scale, respectively (ex. 20.1 low scale, 20.2 high scale); 2001 to 2020 for ALARM; and 1000 to 1015 for SPEC. Channel numbers for SPEC type channels are not guaranteed to remain the same over different revisions of the SFAccess program. It is recommended that the tag name be used to identify these channels.

---

**NOTE:** In the SFACCESS program, application files are NOT configured to collect ALARM or SPEC types.

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## ***SFACCESS***

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long\_label is the long, descriptive label for the channel.

short\_label is a brief (12 characters maximum) label for the channel.

value is the channel value. Some channels may have an alphabetic value. For example, the value of Tap Location may either be "Downstream" or "Upstream".

unit\_label is the engineering unit label.

fixed\_var\_char is "V" if the channel value is variable (live) or "F" if it has been fixed.

### III. THE EVENT LOG FILE TYPE

An event log file is organized as a series of blocks of location data:

Location 1  
Location 2  
...  
Location N

Each location in an event log file contains the following:

Line 1: (Location identifying information)

"\EVENT\_LOG\_START", "loc\_name", "loc\_id", "unit\_name", "unit\_id",  
"calc\_module"

Line 2: (Column Headings Prefix)

"\EVENT\_LOG\_HEAD", "\"

where       "\" is intended as a continuation character to the next line (Refer to the  
              explanation in the data log section above).

Line 3: (Column Headings)

"Date", "Time", "Code", "Description", "Number", "Value #1(Old)",  
"Value #2 (New)"

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Line 4+: (until the next "\EVENT\_LOG\_START")

```
"date", "time", event_type_code, "event_desc", "event_vector",
 "value_1", "value_2"
```

where date is "MM/DD/YY".

time is "HH:MM:SS".

event\_type\_code is the SolarFlow Plus event type code defined by the SolarFlow Plus communication protocol.

event\_desc is a description of the event (as normally seen on SFACCESS event log reports).

event\_vector is the event vector (or number) normally used to designate what channel, alarm, etc. was affected by the event.

value\_1 is the first value related to the event. In many event types, this is considered the old value.

value\_2 is the second value related to the event. In many event types, this is considered the new value.

## **SPECIAL CASES**

If the user of SFACCESS program specifies the same name for one or more of the output files when exporting, the data will be appended into the file specified. Custom programs written to interpret these data files must account for this.

If the user intends to import SFACCESS data into spreadsheet or database programs, separate files for data log, miscellaneous channel/tags, and event logs should be used.

**APPLICATION NOTES****INTRODUCTION**

After the DANIEL INDUSTRIES, INC. SFACCESS PROGRAM has acquired data, it must be exported through the program's ASCII export function and into the user's software. After being imported, the data can then be manipulated to meet specific user needs.

In order to assist the user with this SFACCESS to database/spreadsheet interface, DANIEL INDUSTRIES provides the following information, which by necessity, assumes that the user is utilizing one (or more) of the more common, or widelyused database or spreadsheet software programs.

DANIEL INDUSTRIES has selected six of these "industry-standard" database or spreadsheet programs. These programs, which include the Paradox, Quattro, Quattro Pro software products by Borland International, Inc., FoxPro software by Fox Software, Inc., Lotus 1-2-3 (release 3.X) by the Lotus Development Corporation, and dBASE IV software by the Ashton-Tate Corporation, are addressed in the following sections, and include screens and instructions appropriate to each.

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**NOTE:** Although this DANIEL INDUSTRIES manual names and briefly discusses six commercially available database and spreadsheet programs, DANIEL INDUSTRIES, INC. is not endorsing these products as being preferable or superior to any other commercially available database or spreadsheet programs.

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## dBASE IV

Using dBASE IV software to import SFACCESS data is described in the following steps.

1. After entering the dBASE IV program, the dBASE IV CONTROL CENTER screen appears, as shown in the following illustration.

Catalog Tools Exit 9:34:36 am

**dBASE IV CONTROL CENTER**

CATALOG: D:\DBASE\UNTITLED.CAT

| Data     | Queries  | Forms    | Reports  | Labels   | Applications |
|----------|----------|----------|----------|----------|--------------|
| <create> | <create> | <create> | <create> | <create> | <create>     |
|          |          |          |          |          |              |

File: New file  
Description: Press ENTER on <create> to create a new file

Help:F1 Use:← Data:F2 Design:Shift-F2 Quick Report:Shift-F9 Menus:F10

2. At the dBASE IV CONTROL CENTER screen,

- use the UP and DOWN ARROW keys to highlight and select the Create field in the Data column, and
- press the ENTER key to display a screen used for entering the components of the database structure, as shown in the following illustration.

Layout
Organize
Append
Go To
Exit

9:35:08 am

Bytes remaining: 4000

| Num | Field Name | Field Type | Width | Dec | Index |
|-----|------------|------------|-------|-----|-------|
| 1   | XXXXXXXXXX | Character  | 10    | 0   | 1     |

Database D:\dbase\NEW
Field 1/1
Num

Enter the field name. Insert/Delete field:Ctrl-N/Ctrl-U

Field names begin with a letter and may contain letters, digits and underscores

3. At the screen used for entering the components of the database structure,
  - enter the database structure as shown in the following illustration, and when finished
  - press the ENTER key on a blank line in order to save the newly entered data.

| Layout   Organize   Append   Go To   Exit     |            |            |       |     |       | 9:54:23 am            |
|-----------------------------------------------|------------|------------|-------|-----|-------|-----------------------|
|                                               |            |            |       |     |       | Bytes remaining: 3840 |
| Num                                           | Field Name | Field Type | Width | Dec | Index |                       |
| 1                                             | LDC_NAME   | Character  | 15    |     | N     |                       |
| 2                                             | LDC_DATE   | Date       | 8     |     | N     |                       |
| 3                                             | LDC_TIME   | Character  | 5     |     | N     |                       |
| 4                                             | FAULTS     | Character  | 24    |     | N     |                       |
| 5                                             | DATA_0     | Numeric    | 12    | 3   | N     |                       |
| 6                                             | DATA_1     | Numeric    | 12    | 3   | N     |                       |
| 7                                             | DATA_2     | Numeric    | 12    | 3   | N     |                       |
| 8                                             | DATA_3     | Numeric    | 12    | 3   | N     |                       |
| 9                                             | DATA_4     | Numeric    | 12    | 3   | N     |                       |
| 10                                            | DATA_5     | Numeric    | 12    | 3   | N     |                       |
| 11                                            | DATA_6     | Numeric    | 12    | 3   | N     |                       |
| 12                                            | DATA_7     | Numeric    | 12    | 3   | N     |                       |
| 13                                            | DATA_8     | Numeric    | 12    | 3   | N     |                       |
| 14                                            | DATA_9     | Numeric    | 12    | 3   | N     |                       |
| Database: D:\dbase\<NEW>   Field 14/14   Num  |            |            |       |     |       |                       |
| Change option to index on this field:Spacebar |            |            |       |     |       |                       |

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4. When the ENTER key is pressed to save the new database structure, a popup window will appear, as shown in the following illustration. At this point,
- enter the database name, and again
  - press the ENTER key.

| Layout   Organize   Append   Go To   Exit |            |            |       |     |       | 9:59:04 am            |
|-------------------------------------------|------------|------------|-------|-----|-------|-----------------------|
| Num                                       | Field Name | Field Type | Width | Dec | Index | Bytes remaining: 3828 |
| 1                                         | LOC_NAME   | Character  | 15    |     | N     |                       |
| 2                                         | LOC_DATE   | Date       | 8     |     | N     |                       |
| 3                                         | LOC_TIME   | Character  | 5     |     | N     |                       |
| 4                                         | FAULTS     |            |       |     |       |                       |
| 5                                         | DATA_0     |            |       |     |       |                       |
| 6                                         | DATA_1     |            |       |     |       |                       |
| 7                                         | DATA_2     | Numeric    | 12    | 3   | N     |                       |
| 8                                         | DATA_3     | Numeric    | 12    | 3   | N     |                       |
| 9                                         | DATA_4     | Numeric    | 12    | 3   | N     |                       |
| 10                                        | DATA_5     | Numeric    | 12    | 3   | N     |                       |
| 11                                        | DATA_6     | Numeric    | 12    | 3   | N     |                       |
| 12                                        | DATA_7     | Numeric    | 12    | 0   | N     |                       |
| 13                                        | DATA_8     | Numeric    | 12    | 3   | N     |                       |
| 14                                        | DATA_9     | Numeric    | 12    | 3   | N     |                       |
| 15                                        |            | Character  |       |     | N     |                       |

Save as : dmimport.dbf

|                                                                                 |                |             |     |
|---------------------------------------------------------------------------------|----------------|-------------|-----|
| Database                                                                        | D:\dbase\<NEW> | Field 15/15 | Num |
| Zoom: F9   Accept: <   Cancel: Esc                                              |                |             |     |
| Field names begin with a letter and may contain letters, digits and underscores |                |             |     |

5. After the ENTER key has been pressed and the database name has been saved, a question and selection choice, "Input data records now? (Y/N)", will appear at the bottom of the screen, as shown in the following illustration.

| Layout   Organize   Append   Go To   Exit |            |            |       |     |       | 9:59:13 am            |
|-------------------------------------------|------------|------------|-------|-----|-------|-----------------------|
|                                           |            |            |       |     |       | Bytes remaining: 3828 |
| Num                                       | Field Name | Field Type | Width | Dec | Index |                       |
| 1                                         | LOC_NAME   | Character  | 15    |     | N     |                       |
| 2                                         | LOC_DATE   | Date       | 8     |     | N     |                       |
| 3                                         | LOC_TIME   | Character  | 5     |     | N     |                       |
| 4                                         | FAULTS     | Character  | 24    |     | N     |                       |
| 5                                         | DATA_0     | Numeric    | 12    | 3   | N     |                       |
| 6                                         | DATA_1     | Numeric    | 12    | 3   | N     |                       |
| 7                                         | DATA_2     | Numeric    | 12    | 3   | N     |                       |
| 8                                         | DATA_3     | Numeric    | 12    | 3   | N     |                       |
| 9                                         | DATA_4     | Numeric    | 12    | 3   | N     |                       |
| 10                                        | DATA_5     | Numeric    | 12    | 3   | N     |                       |
| 11                                        | DATA_6     | Numeric    | 12    | 3   | N     |                       |
| 12                                        | DATA_7     | Numeric    | 12    | 0   | N     |                       |
| 13                                        | DATA_8     | Numeric    | 12    | 3   | N     |                       |
| 14                                        | DATA_9     | Numeric    | 12    | 3   | N     |                       |
| 15                                        |            | Character  |       |     | N     |                       |

|                               |                |             |     |
|-------------------------------|----------------|-------------|-----|
| Database                      | D:\dbase\<NEW> | Field 14/14 | Num |
| Input data records now? (Y/N) |                |             |     |

## SFACCESS

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6. At the question and selection choice, "Input data records now? (Y/N) ", the user should
- select the "N" (No) option, which will cause the dBASE IV CONTROL CENTER screen to re-appear, as shown in the following illustration.

Catalog Tools Exit 10:04:37 am

dBASE IV CONTROL CENTER

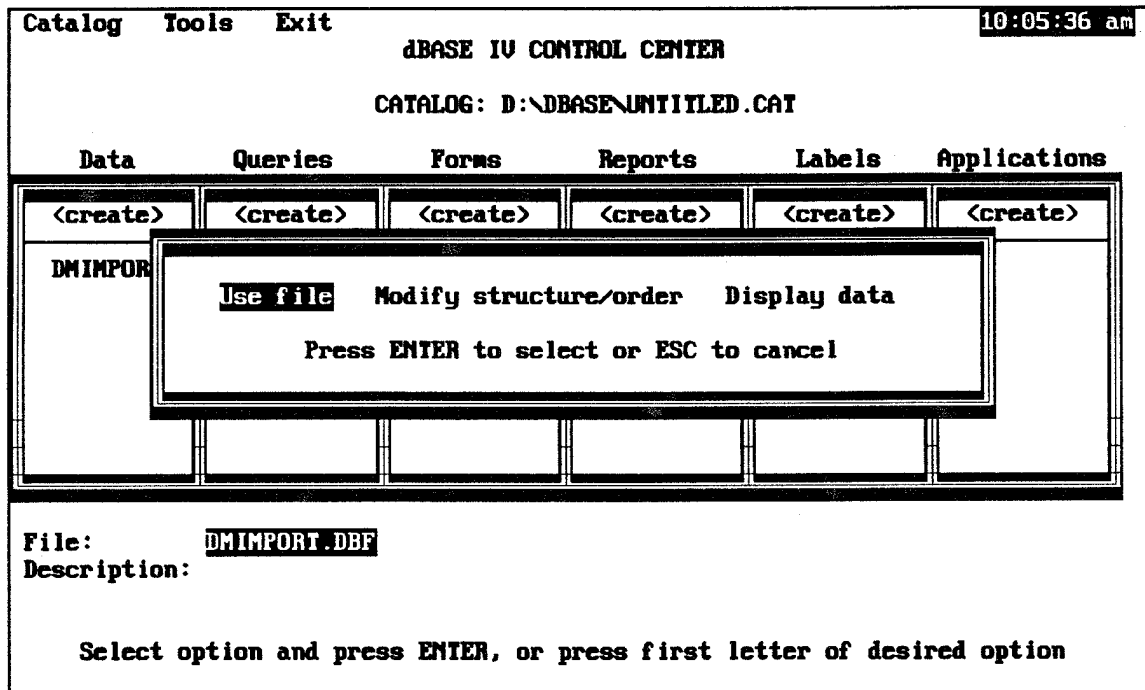
CATALOG: D:\DBASE\UNTITLED.CAT

| Data     | Queries  | Forms    | Reports  | Labels   | Applications |
|----------|----------|----------|----------|----------|--------------|
| <create> | <create> | <create> | <create> | <create> | <create>     |
| DMIMPORT |          |          |          |          |              |

File: DMIMPORT.DBF  
Description:

Help:F1 Use:← Data:F2 Design:Shift-F2 Quick Report:Shift-F9 Menus:F10

7. At the dBASE IV CONTROL CENTER screen,
- use the UP and DOWN ARROW keys to highlight and select the newly created database name in the Data column, and
  - press the ENTER key in order to use that database, and cause a popup option window to appear, as shown in the following illustration.



## SFACCESS

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8. After the pop-up option window appears,
- use the RIGHT and LEFT ARROW keys to highlight and select the Use File field, and
  - press the ENTER key, or press the "first letter of the desired option", to remove the pop-up option window, and cause the dBASE IV CONTROL CENTER screen to re-appear, as shown in the following illustration.

|                                                                                 |          |          |             |          |              |
|---------------------------------------------------------------------------------|----------|----------|-------------|----------|--------------|
| Catalog   Tools   Exit                                                          |          |          | 10:04:37 am |          |              |
| dBASE IV CONTROL CENTER                                                         |          |          |             |          |              |
| CATALOG: D:\DBASE\UNTITLED.CAT                                                  |          |          |             |          |              |
| Data                                                                            | Queries  | Forms    | Reports     | Labels   | Applications |
| <create>                                                                        | <create> | <create> | <create>    | <create> | <create>     |
| DMIMPORT                                                                        |          |          |             |          |              |
| File: <b>DMIMPORT.DBF</b>                                                       |          |          |             |          |              |
| Description:                                                                    |          |          |             |          |              |
| Help:F1   Use:←   Data:F2   Design:Shift-F2   Quick Report:Shift-F9   Menus:F10 |          |          |             |          |              |

9. At the dBASE IV CONTROL CENTER screen,
- press the SHIFT and F2 keys simultaneously to display a screen with the database structure displayed, as shown in the following illustration.

| Layout Organize Append Go To Exit |            |            |       |     |       | 9:54:23 am            |
|-----------------------------------|------------|------------|-------|-----|-------|-----------------------|
|                                   |            |            |       |     |       | Bytes remaining: 3840 |
| Num                               | Field Name | Field Type | Width | Dec | Index |                       |
| 1                                 | LOC_NAME   | Character  | 15    |     | N     |                       |
| 2                                 | LOC_DATE   | Date       | 8     |     | N     |                       |
| 3                                 | LOC_TIME   | Character  | 5     |     | N     |                       |
| 4                                 | FAULTS     | Character  | 24    |     | N     |                       |
| 5                                 | DATA_0     | Numeric    | 12    | 3   | N     |                       |
| 6                                 | DATA_1     | Numeric    | 12    | 3   | N     |                       |
| 7                                 | DATA_2     | Numeric    | 12    | 3   | N     |                       |
| 8                                 | DATA_3     | Numeric    | 12    | 3   | N     |                       |
| 9                                 | DATA_4     | Numeric    | 12    | 3   | N     |                       |
| 10                                | DATA_5     | Numeric    | 12    | 3   | N     |                       |
| 11                                | DATA_6     | Numeric    | 12    | 3   | N     |                       |
| 12                                | DATA_7     | Numeric    | 12    | 3   | N     |                       |
| 13                                | DATA_8     | Numeric    | 12    | 3   | N     |                       |
| 14                                | DATA_9     | Numeric    | 12    | 3   | N     |                       |

|                                               |                |             |     |
|-----------------------------------------------|----------------|-------------|-----|
| Database                                      | D:\dbase\<NEW> | Field 14/14 | Num |
| Change option to index on this field:Spacebar |                |             |     |

## SFACCESS

10. At the screen displaying the database structure,
- use the RIGHT and LEFT ARROW keys to highlight and select the "Append" option, and display a pop-up menu window used for entering, appending, and copying records, as shown in the following illustration, and
  - press the letter C key to "copy records from (a) non-dBASE file", and display an additional pop-up menu window, which is also shown in the following illustration.

| Layout |            | Organize |                                  | Append | Go To | Exit | 10:10:22 am             |
|--------|------------|----------|----------------------------------|--------|-------|------|-------------------------|
| Num    | Field Name |          |                                  |        |       |      | Records remaining: 3828 |
| 1      | LOC_NAME   |          |                                  |        |       |      |                         |
| 2      | LOC_DATE   | D        | Enter records from keyboard      |        |       |      |                         |
| 3      | LOC_TIME   | C        | Append records from dBASE file   |        |       |      |                         |
| 4      | FAULTS     | C        | Copy records from non-dBASE file |        |       |      |                         |
| 5      | DATA_0     | N        |                                  |        |       |      |                         |
| 6      | DATA_1     | N        |                                  |        |       |      |                         |
| 7      | DATA_2     | N        |                                  |        |       |      |                         |
| 8      | DATA_3     | N        |                                  |        |       |      |                         |
| 9      | DATA_4     | N        |                                  |        |       |      |                         |
| 10     | DATA_5     | N        |                                  |        |       |      |                         |
| 11     | DATA_6     | N        |                                  |        |       |      |                         |
| 12     | DATA_7     | Numeric  | 12                               | 0      | N     |      |                         |
| 13     | DATA_8     | Numeric  | 12                               | 3      | N     |      |                         |
| 14     | DATA_9     | Numeric  | 12                               | 3      | N     |      |                         |

| Database                                                                   | D:\dbase\DMIMPORT | Num |
|----------------------------------------------------------------------------|-------------------|-----|
| Position selection bar: ↑↓    Select: ←    Leave menu: Esc                 |                   |     |
| Add records to database file from text file, fields separated by character |                   |     |

11. At the second pop-up menu window,
- press the letter C key to select "Character delimited", and display a third pop-up menu window on the right side of the screen, as shown in the following illustration.

| Layout                                                                     |            | Organize          | Append                                                                                                                                                                                                                | Go To   | Exit | 10:11:25 am |                     |
|----------------------------------------------------------------------------|------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|------|-------------|---------------------|
| Num                                                                        | Field Name |                   | Enter records from keyboard<br>Append records from dBASE file<br>▶ Copy records from non-dBASE file                                                                                                                   |         |      |             |                     |
| 1                                                                          | LDC_NAME   |                   | RapidFile (.rpd)<br>dBASE II (.db2)<br>Framework II (.fw2)<br>Lotus 1-2-3 (.wks)<br>VisiCalc (.dif)<br>SYLK-Multiplan<br>Text fixed-length fields (.txt)<br>Blank delimited (.txt)<br>Character delimited ("") (.txt) |         |      |             |                     |
| 2                                                                          | LDC_DATE   | D                 |                                                                                                                                                                                                                       |         |      |             | 17 11 ◀             |
| 3                                                                          | LDC_TIME   | C                 |                                                                                                                                                                                                                       |         |      |             | 18 12 ⤴             |
| 4                                                                          | FAULTS     | C                 |                                                                                                                                                                                                                       |         |      |             | 19 13 ⏏             |
| 5                                                                          | DATA_0     | N                 |                                                                                                                                                                                                                       |         |      |             | 20 14 ⏏             |
| 6                                                                          | DATA_1     | N                 |                                                                                                                                                                                                                       |         |      |             | 21 15 ⏏             |
| 7                                                                          | DATA_2     | N                 |                                                                                                                                                                                                                       |         |      |             | 22 16 ⏏             |
| 8                                                                          | DATA_3     | N                 |                                                                                                                                                                                                                       |         |      |             | 23 17 ⏏             |
| 9                                                                          | DATA_4     | N                 |                                                                                                                                                                                                                       |         |      |             | 24 18 ⏏             |
| 10                                                                         | DATA_5     | N                 |                                                                                                                                                                                                                       |         |      |             | 25 19 ⏏             |
| 11                                                                         | DATA_6     | N                 |                                                                                                                                                                                                                       |         |      |             | 26 1A ⏏             |
| 12                                                                         | DATA_7     | Numeric           | 12                                                                                                                                                                                                                    | 0       | N    |             | 27 1B ⏏             |
| 13                                                                         | DATA_8     | Numeric           | 12                                                                                                                                                                                                                    | 3       | N    |             | 28 1C ⏏             |
| 14                                                                         | DATA_9     | Numeric           | 12                                                                                                                                                                                                                    | 3       | N    |             | 29 1D ⏏             |
| Database                                                                   |            | D:\dbase\DMIMPORT |                                                                                                                                                                                                                       |         |      | Num         | 30 1E ⏏             |
| Position selection bar:                                                    |            | f↓                |                                                                                                                                                                                                                       | Select: | ←    |             | Leave picklist: Esc |
| Add records to database file from text file, fields separated by character |            |                   |                                                                                                                                                                                                                       |         |      |             |                     |

## SFACCESS

12. At the third pop-up menu window, which appears at the right side of the screen,
  - press the ENTER key to accept the default delimiter, and display another (and fourth) pop-up window (the "picklist") at the top, right portion of the screen, as shown in the following illustration, and
  - use the UP and DOWN ARROW keys and the ENTER key as many times as necessary in order to locate and select the directory containing the desired export file(s).

| Layout Organize                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                          | Append Go To Exit |            |        |          | 10:11:31 am |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------|-------------------|------------|--------|----------|-------------|----------|---|----------|---|--------|---|--------|---|--------|---|--------|---|--------|---|--------|----|--------|----|--------|----|--------|----|--------|----|--------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|-----------------------------|--|--|--|--|--------------------------------|--|--|--|--|------------------------------------|--|--|--|--|--|-----------|--|--|--------|--|----------|--|--|--------|--|--------------|--|--|--------|--|-------------|--|--|--------|--|----------|--|--|--------|--|----------------|--|--|--|--|--------------------------|--|--|--------|--|-----------------|--|--|--------|--|---------------------|--|--|--------|--|---------|----|---|---|--|---------|----|---|---|--|---------|----|---|---|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--------|--|------|--|----------|--|-----------|--|
| <table border="1"> <thead> <tr> <th>Num</th> <th>Field Name</th> </tr> </thead> <tbody> <tr><td>1</td><td>LOC_NAME</td></tr> <tr><td>2</td><td>LOC_DATE</td></tr> <tr><td>3</td><td>LOC_TIME</td></tr> <tr><td>4</td><td>FAULTS</td></tr> <tr><td>5</td><td>DATA_0</td></tr> <tr><td>6</td><td>DATA_1</td></tr> <tr><td>7</td><td>DATA_2</td></tr> <tr><td>8</td><td>DATA_3</td></tr> <tr><td>9</td><td>DATA_4</td></tr> <tr><td>10</td><td>DATA_5</td></tr> <tr><td>11</td><td>DATA_6</td></tr> <tr><td>12</td><td>DATA_7</td></tr> <tr><td>13</td><td>DATA_8</td></tr> <tr><td>14</td><td>DATA_9</td></tr> </tbody> </table> |                          | Num               | Field Name | 1      | LOC_NAME | 2           | LOC_DATE | 3 | LOC_TIME | 4 | FAULTS | 5 | DATA_0 | 6 | DATA_1 | 7 | DATA_2 | 8 | DATA_3 | 9 | DATA_4 | 10 | DATA_5 | 11 | DATA_6 | 12 | DATA_7 | 13 | DATA_8 | 14 | DATA_9 | <table border="1"> <tr> <td colspan="5">Enter records from keyboard</td> </tr> <tr> <td colspan="5">Append records from dBASE file</td> </tr> <tr> <td colspan="5">▶ Copy records from non-dBASE file</td> </tr> <tr> <td></td> <td>RapidFile</td> <td></td> <td></td> <td>(.rpd)</td> </tr> <tr> <td></td> <td>dBASE II</td> <td></td> <td></td> <td>(.db2)</td> </tr> <tr> <td></td> <td>Framework II</td> <td></td> <td></td> <td>(.fw2)</td> </tr> <tr> <td></td> <td>Lotus 1-2-3</td> <td></td> <td></td> <td>(.wks)</td> </tr> <tr> <td></td> <td>VisiCalc</td> <td></td> <td></td> <td>(.dif)</td> </tr> <tr> <td></td> <td>SYLK-Multiplan</td> <td></td> <td></td> <td></td> </tr> <tr> <td></td> <td>Text fixed-length fields</td> <td></td> <td></td> <td>(.txt)</td> </tr> <tr> <td></td> <td>Blank delimited</td> <td></td> <td></td> <td>(.txt)</td> </tr> <tr> <td></td> <td>Character delimited</td> <td></td> <td></td> <td>(.txt)</td> </tr> <tr> <td></td> <td>Numeric</td> <td>12</td> <td>0</td> <td>N</td> </tr> <tr> <td></td> <td>Numeric</td> <td>12</td> <td>3</td> <td>N</td> </tr> <tr> <td></td> <td>Numeric</td> <td>12</td> <td>3</td> <td>N</td> </tr> </table> |  |  |  | Enter records from keyboard |  |  |  |  | Append records from dBASE file |  |  |  |  | ▶ Copy records from non-dBASE file |  |  |  |  |  | RapidFile |  |  | (.rpd) |  | dBASE II |  |  | (.db2) |  | Framework II |  |  | (.fw2) |  | Lotus 1-2-3 |  |  | (.wks) |  | VisiCalc |  |  | (.dif) |  | SYLK-Multiplan |  |  |  |  | Text fixed-length fields |  |  | (.txt) |  | Blank delimited |  |  | (.txt) |  | Character delimited |  |  | (.txt) |  | Numeric | 12 | 0 | N |  | Numeric | 12 | 3 | N |  | Numeric | 12 | 3 | N | <table border="1"> <tr><td colspan="2">\DBASE</td></tr> <tr><td colspan="2">&lt;D:&gt;</td></tr> <tr><td colspan="2">&lt;parent&gt;</td></tr> <tr><td colspan="2">&lt;SQLHOME&gt;</td></tr> </table> |  | \DBASE |  | <D:> |  | <parent> |  | <SQLHOME> |  |
| Num                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | Field Name               |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 1                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LOC_NAME                 |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 2                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LOC_DATE                 |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | LOC_TIME                 |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | FAULTS                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 5                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATA_0                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 6                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATA_1                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 7                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATA_2                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 8                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATA_3                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 9                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | DATA_4                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 10                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATA_5                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 11                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATA_6                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 12                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATA_7                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 13                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATA_8                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| 14                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | DATA_9                   |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| Enter records from keyboard                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| Append records from dBASE file                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| ▶ Copy records from non-dBASE file                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | RapidFile                |                   |            | (.rpd) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | dBASE II                 |                   |            | (.db2) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Framework II             |                   |            | (.fw2) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Lotus 1-2-3              |                   |            | (.wks) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | VisiCalc                 |                   |            | (.dif) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | SYLK-Multiplan           |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Text fixed-length fields |                   |            | (.txt) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Blank delimited          |                   |            | (.txt) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Character delimited      |                   |            | (.txt) |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Numeric                  | 12                | 0          | N      |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Numeric                  | 12                | 3          | N      |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Numeric                  | 12                | 3          | N      |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| \DBASE                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| <D:>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| <parent>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| <SQLHOME>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| Database: D:\dbase\DMIMPORT                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |                          | Opt 1/4           |            | Num    |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| Position selection bar: f↓ Select: ← Leave picklist: Esc                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |
| Add records to database file from text file, fields separated by character                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                          |                   |            |        |          |             |          |   |          |   |        |   |        |   |        |   |        |   |        |   |        |    |        |    |        |    |        |    |        |    |        |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |  |  |  |                             |  |  |  |  |                                |  |  |  |  |                                    |  |  |  |  |  |           |  |  |        |  |          |  |  |        |  |              |  |  |        |  |             |  |  |        |  |          |  |  |        |  |                |  |  |  |  |                          |  |  |        |  |                 |  |  |        |  |                     |  |  |        |  |         |    |   |   |  |         |    |   |   |  |         |    |   |   |                                                                                                                                                                                                      |  |        |  |      |  |          |  |           |  |

13. After the desired directory and export file(s) have been located and selected,
- press the ENTER key to append the chosen records to the database, and display them in the "picklist" pop-up window, as shown in the following illustration.

| Layout |            | Organize                                                                                            |                          | Append |   | Go To |  | Exit |  | 10:16:50 am |  |
|--------|------------|-----------------------------------------------------------------------------------------------------|--------------------------|--------|---|-------|--|------|--|-------------|--|
| Num    | Field Name | Enter records from keyboard<br>Append records from dBASE file<br>▶ Copy records from non-dBASE file |                          |        |   |       |  |      |  |             |  |
| 1      | LOC_NAME   | D                                                                                                   | RapidFile                |        |   |       |  |      |  |             |  |
| 2      | LOC_DATE   | C                                                                                                   | dBASE II                 |        |   |       |  |      |  |             |  |
| 3      | LOC_TIME   | C                                                                                                   | Framework II             |        |   |       |  |      |  |             |  |
| 4      | FAULTS     | N                                                                                                   | Lotus 1-2-3              |        |   |       |  |      |  |             |  |
| 5      | DATA_0     | N                                                                                                   | VisiCalc                 |        |   |       |  |      |  |             |  |
| 6      | DATA_1     | N                                                                                                   | SYLK-Multiplan           |        |   |       |  |      |  |             |  |
| 7      | DATA_2     | N                                                                                                   | Text fixed-length fields |        |   |       |  |      |  |             |  |
| 8      | DATA_3     | N                                                                                                   | Blank delimited          |        |   |       |  |      |  |             |  |
| 9      | DATA_4     | N                                                                                                   | Character delimited      |        |   |       |  |      |  |             |  |
| 10     | DATA_5     | N                                                                                                   |                          |        |   |       |  |      |  |             |  |
| 11     | DATA_6     | N                                                                                                   |                          |        |   |       |  |      |  |             |  |
| 12     | DATA_7     | Numeric                                                                                             | 12                       | 0      | N |       |  |      |  |             |  |
| 13     | DATA_8     | Numeric                                                                                             | 12                       | 3      | N |       |  |      |  |             |  |
| 14     | DATA_9     | Numeric                                                                                             | 12                       | 3      | N |       |  |      |  |             |  |

|                                                                            |                   |         |     |
|----------------------------------------------------------------------------|-------------------|---------|-----|
| Database                                                                   | D:\dbase\DMIMPORT | Opt 1/6 | Num |
| Position selection bar: f1    Select: ←    Leave picklist: Esc             |                   |         |     |
| Add records to database file from text file, fields separated by character |                   |         |     |

**NOTE:** The "picklist" pop-up window displays only files with a ".TXT" extension. Therefore, the ASCII SFACCESS export files will need to be renamed accordingly.

## **SFACCESS**

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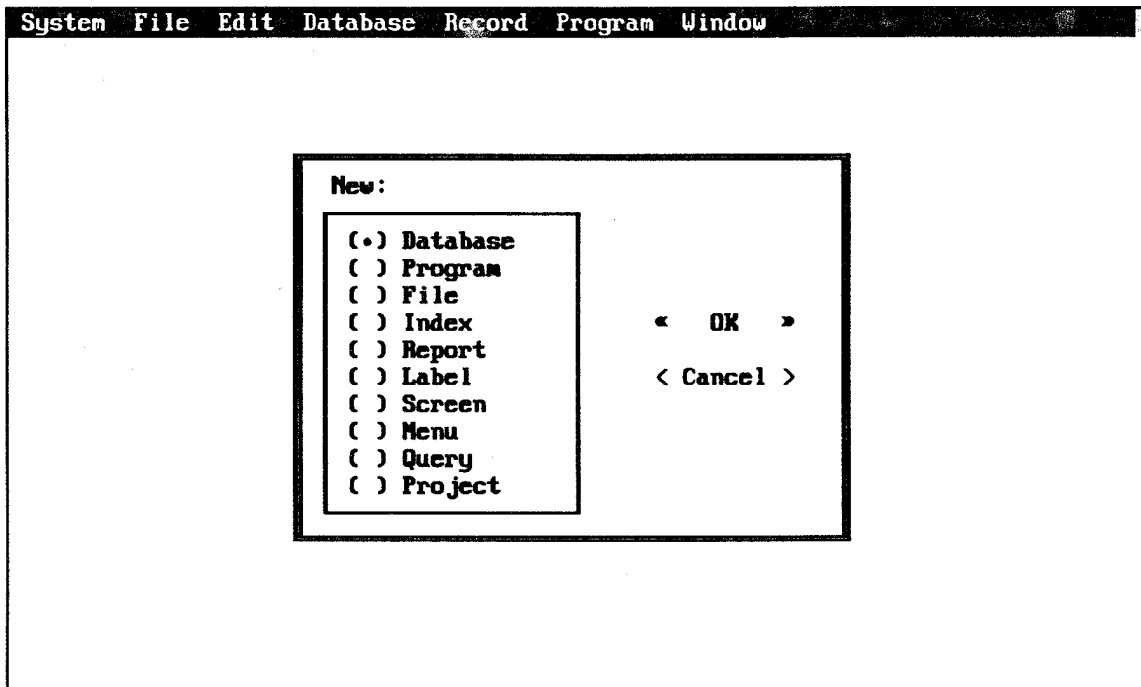
### **FOXPRO**

Using FoxPro software to import SFACCESS data is described in the following procedure.

1. After entering the FoxPro program,
  - press the ALT and F keys simultaneously in order to display the "File" option's pull-down menu, as shown in the following illustration. This menu contains a list of file command options.



2. At the "File" option's pull-down menu, the cursor position will be defaulted to the "New. . ." option. At this option,
- press the ENTER key to display a pop-up window to provide a list of new option possibilities available to the FoxPro program, as shown in the following illustration.



## **SFACCESS**

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3. After the list of new option possibilities appears, the cursor position is defaulted to the "Database" option. At this option,
  - press the ENTER key to display a pop-up window that allows the user to enter field definitions for the SFACCESS program, as shown in the following illustration.

The screenshot shows a window titled "Structure: Untitled" with a menu bar containing "System", "File", "Edit", and "Structure". Inside the window is a dialog box with a table for defining fields. The table has four columns: "Name", "Type", "Width", and "Dec". To the right of the table are four buttons: "<Insert>", "<Delete>", "< OK >", and "<Cancel>". At the bottom of the dialog box, it displays "Fields: 0", "Length: 1", and "Available: 3999".

4. At the pop-up window,
- enter (or list) the appropriate SFACCESS field definitions. These field definitions, which reflect the structure of the DATA MANAGER's data files, are shown (in part) in the following illustration.

System File Edit Structure

Structure: Untitled

| Name       | Type      | Width | Dec | Field                                                                                          |
|------------|-----------|-------|-----|------------------------------------------------------------------------------------------------|
| * LOG_DATE | Date      | 8     |     | <input type="button" value="&lt;Insert&gt;"/><br><input type="button" value="&lt;Delete&gt;"/> |
| * LOG_TIME | Character | 5     |     |                                                                                                |
| * FAULTS   | Character | 24    |     | <input type="button" value="OK"/><br><input type="button" value="Cancel"/>                     |
| * DATA_0   | Numeric   | 12    | 3   |                                                                                                |
| * DATA_1   | Numeric   | 12    | 3   |                                                                                                |
| * DATA_2   | Numeric   | 12    | 3   |                                                                                                |
| * DATA_4   | Numeric   | 12    | 3   |                                                                                                |
| * DATA_5   | Numeric   | 12    | 3   |                                                                                                |
| * DATA_6   | Numeric   | 12    | 3   |                                                                                                |

Fields: 9      Length: 110      Available: 3890

Number of decimal places for the field

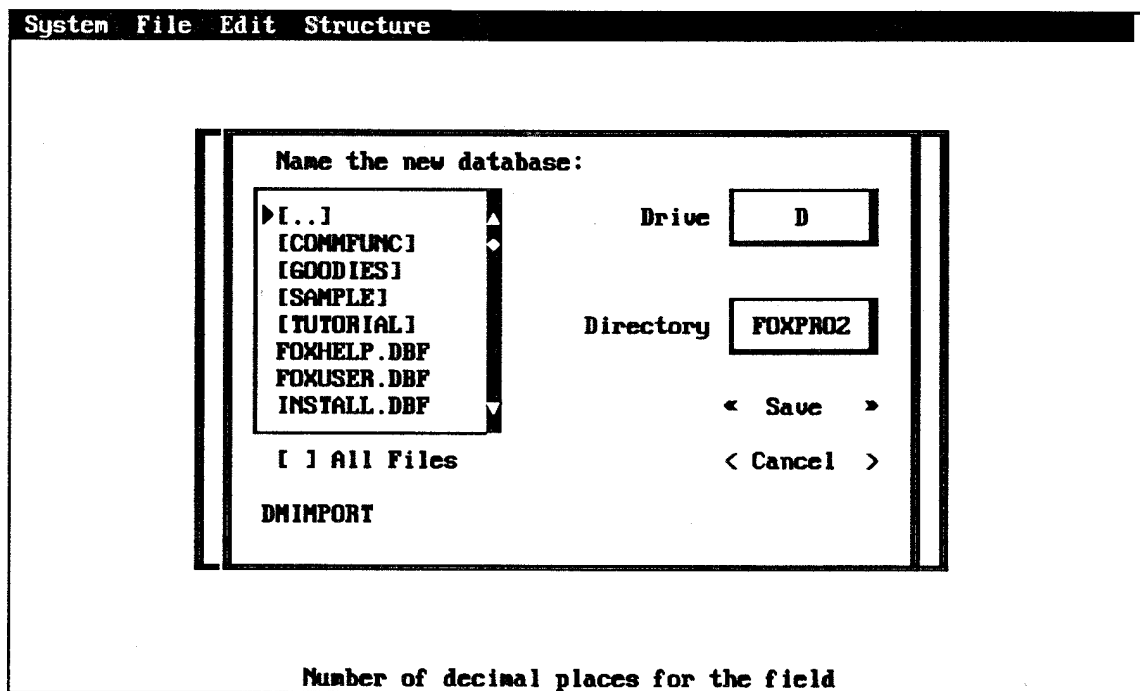
## **SFACCESS**

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A complete list of the SFACCESS program's field definitions is presented in the following table.

| NAME     | TYPE      | WIDTH | DEC |
|----------|-----------|-------|-----|
| LOG_DATE | Date      | 8     |     |
| LOG_TIME | Character | 5     |     |
| FAULTS   | Character | 24    |     |
| DATA_0   | Numeric   | 12    | 3   |
| DATA_1   | Numeric   | 12    | 3   |
| DATA_2   | Numeric   | 12    | 3   |
| DATA_4   | Numeric   | 12    | 3   |
| DATA_5   | Numeric   | 12    | 3   |
| DATA_6   | Numeric   | 12    | 3   |
| DATA_7   | Numeric   | 12    | 3   |
| DATA_8   | Numeric   | 12    | 3   |
| DATA_9   | Numeric   | 12    | 3   |

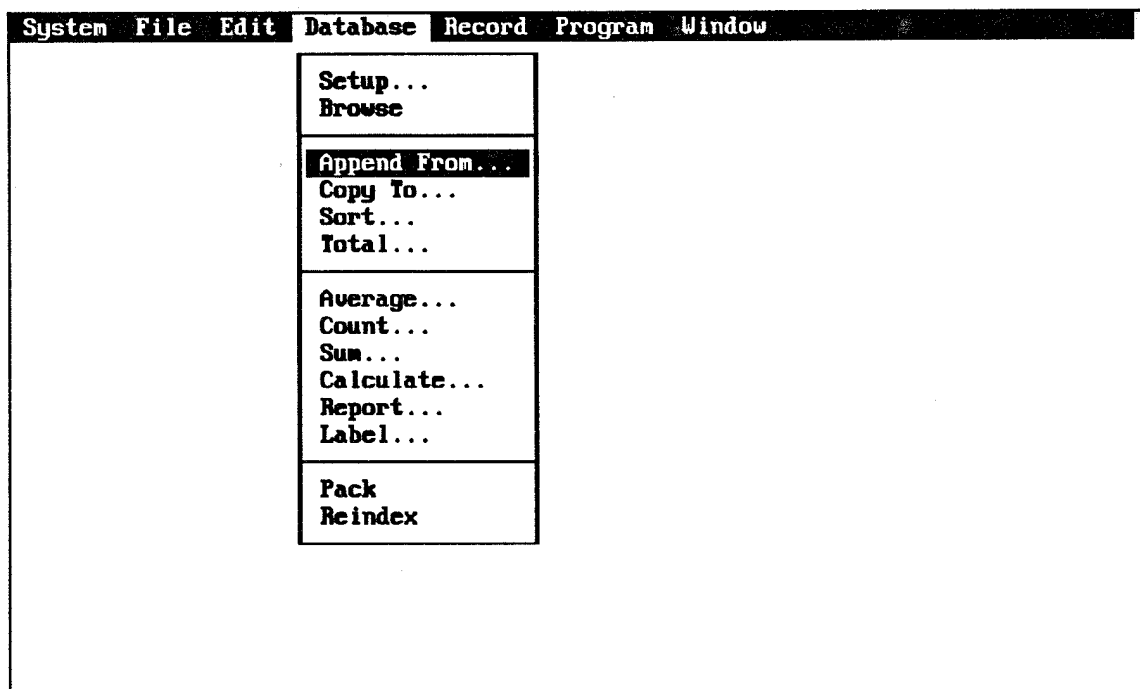
5. After the field definitions have been entered,
- use the TAB key to move to the "OK" option on the screen, and
  - press the ENTER key to display a pop-up window used for entering a database name, as shown in the following illustration.



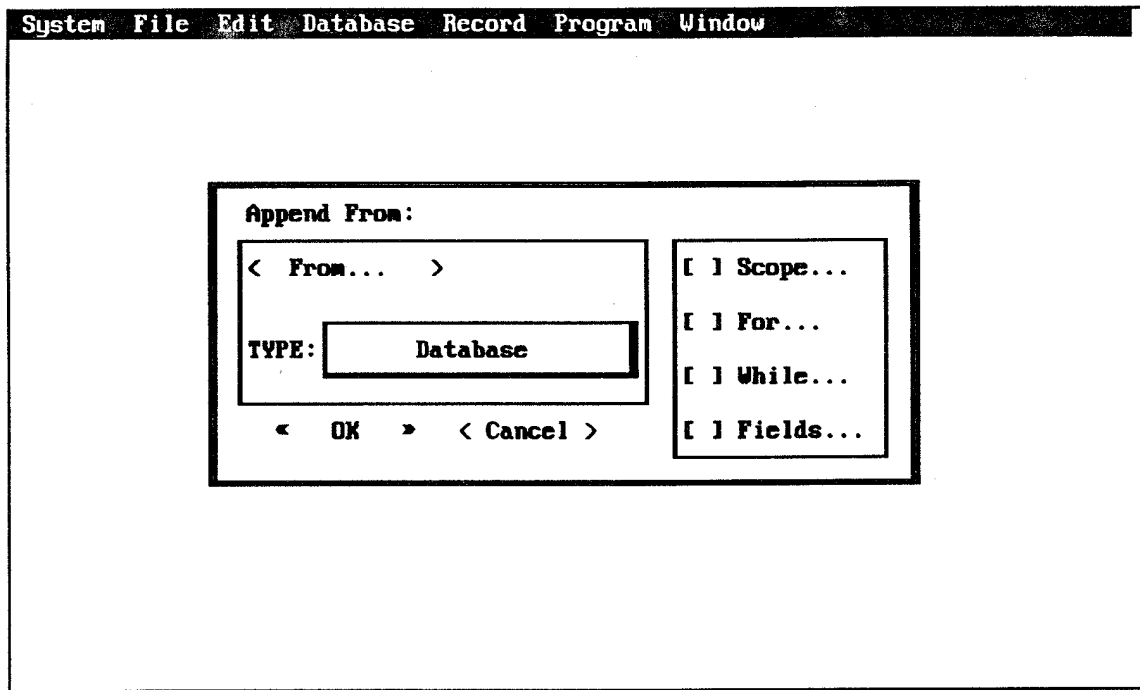
6. At the pop-up window,
  - enter the database name
  - press the ENTER key
  - use the TAB key to move to the "Save" option on the screen, and
  - press the ENTER key, to display a pop-up window, which asks the user to respond to the question, "Input data records now?"

The user selects and enters a "no" response, which creates the database structure, and returns the FoxPro program to the initial program screen.

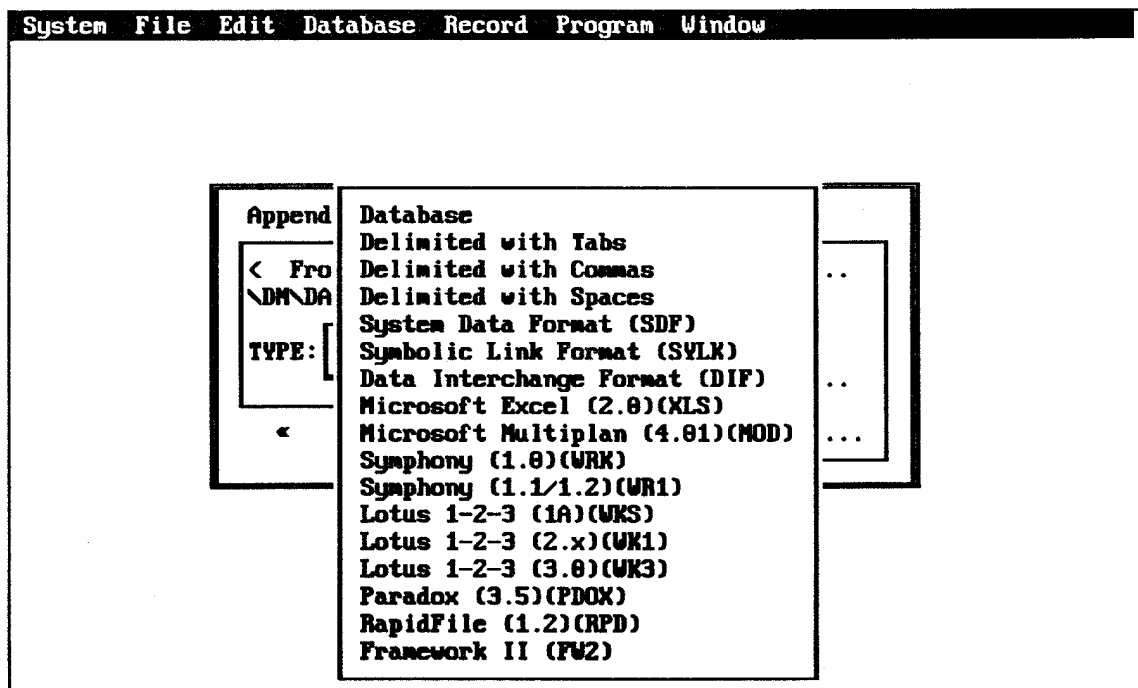
7. At the initial FoxPro screen,
- press the ALT and D keys simultaneously in order to display the "Database" option's pull-down menu, which contains a list of database command options, and
  - press the letter A key, or use the UP and DOWN ARROW keys to highlight and select "Append From..." option, as shown in the following illustration.



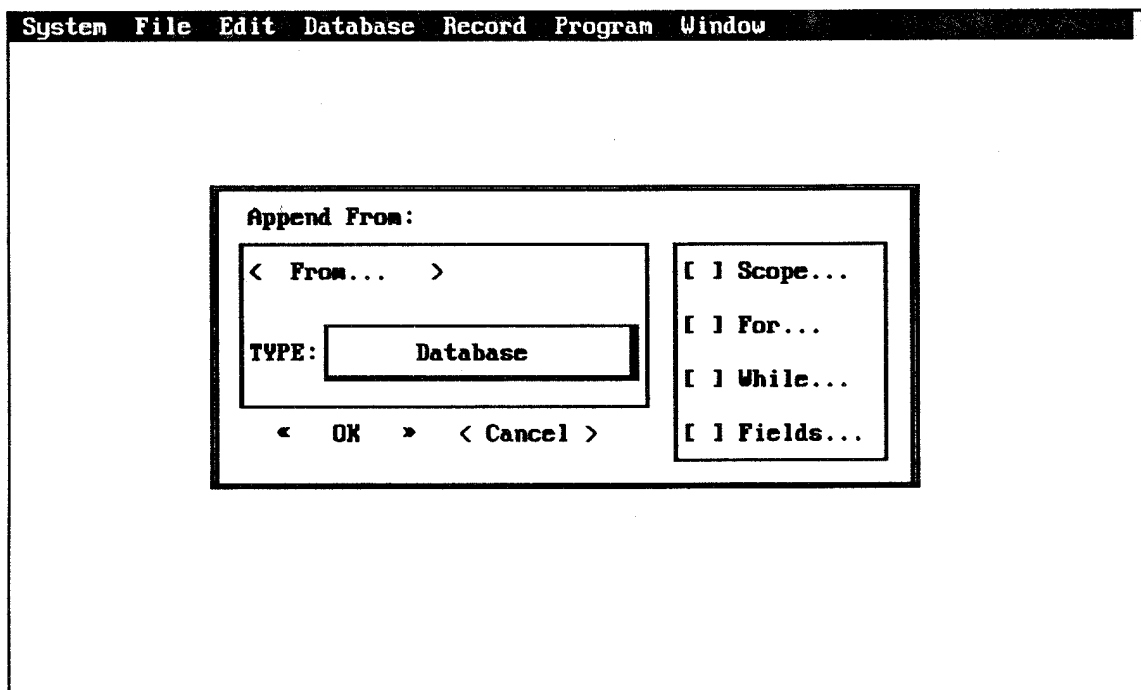
8. At the "Append From . . ." option,
- press the ENTER key to display an "Append From:" pop-up window, as shown in the following illustration.



9. At the "Append From:" POP-UP window,
- press the TAB key to move to the blank file name field,
  - enter the file name of the SFACCESS ASCII export file, which in this example is  
  
`\dm\dandata.out`
  - press the ENTER key to highlight the "TYPE: Database" field, and
  - press the SPACE BAR to display a pop-up window, as shown in the following illustration. In this example, this new pop-up window will provide a list of available program options and will temporarily overlay the "Append From:" pop-up window.



10. At the pop-up window with the list of program options,
- use the UP and DOWN ARROW keys to highlight and select the "Delimited with Commas" option
  - press the ENTER key, which will remove the pop-up window with its list of program options, and cause the "Append From: " pop-up window to be displayed again, as shown in the following illustration.



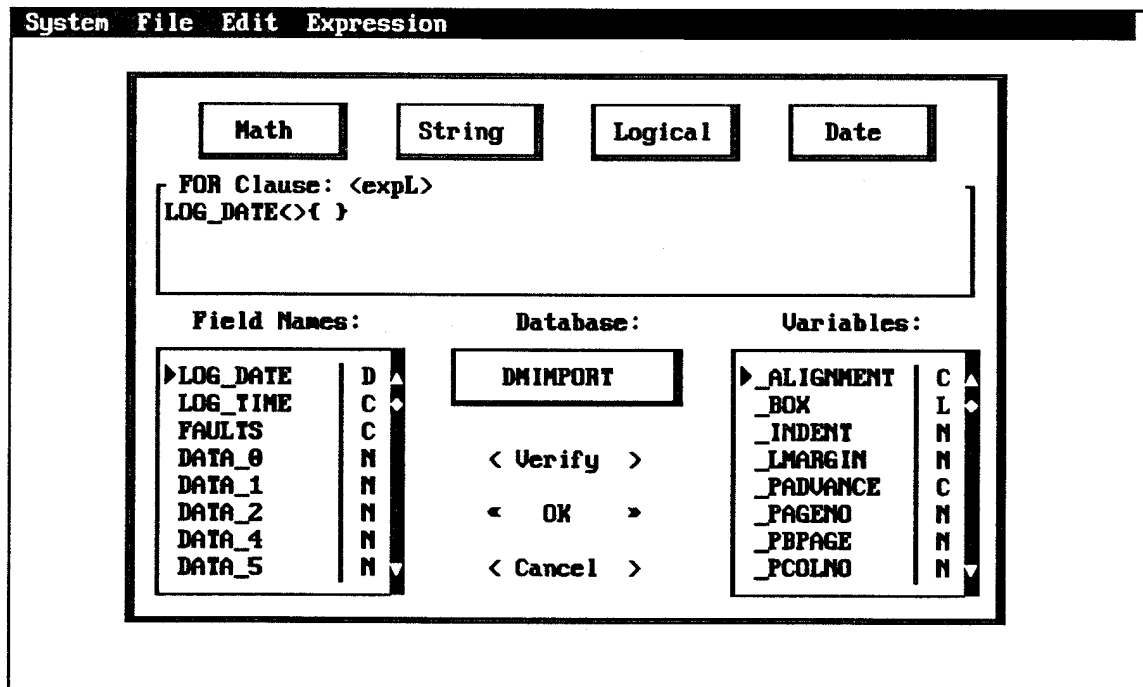
11. At the "Append From:" pop-up window,

- press the letter F key, or use the TAB key to highlight and select the "[ ] For. . . " field,
- press the ENTER key to display a pop-up window,
- type

LOG.DATE < > {b}

in the blank "FOR Clause: <expl.>" field, as shown in the following illustration, and

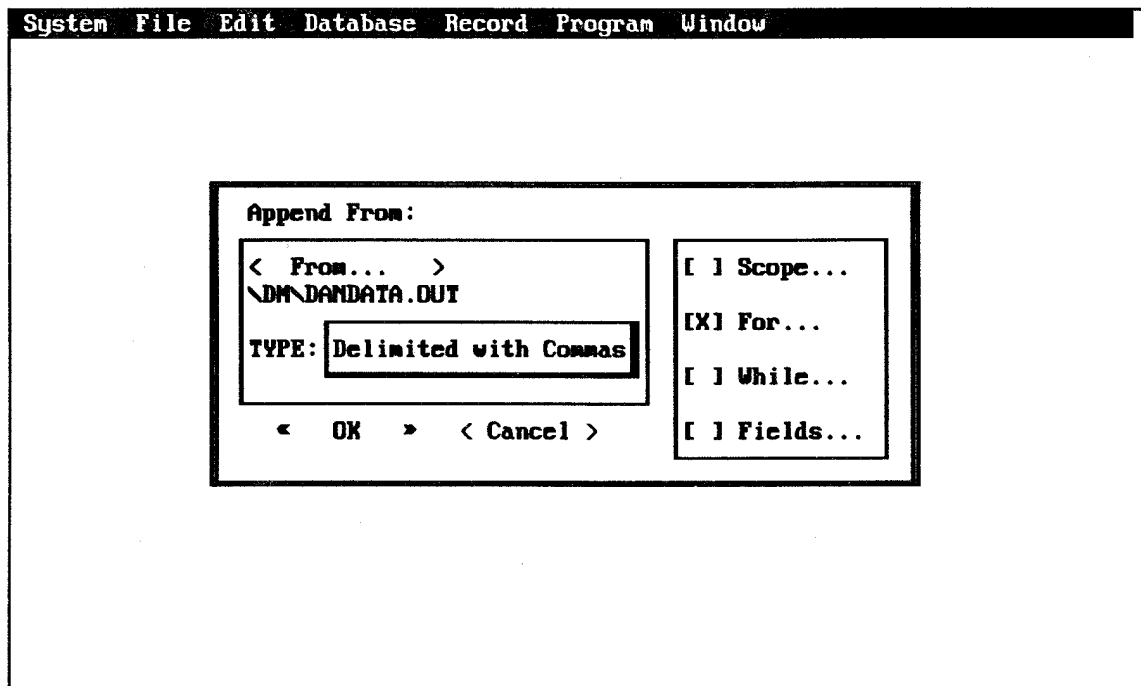
- press the ENTER key.



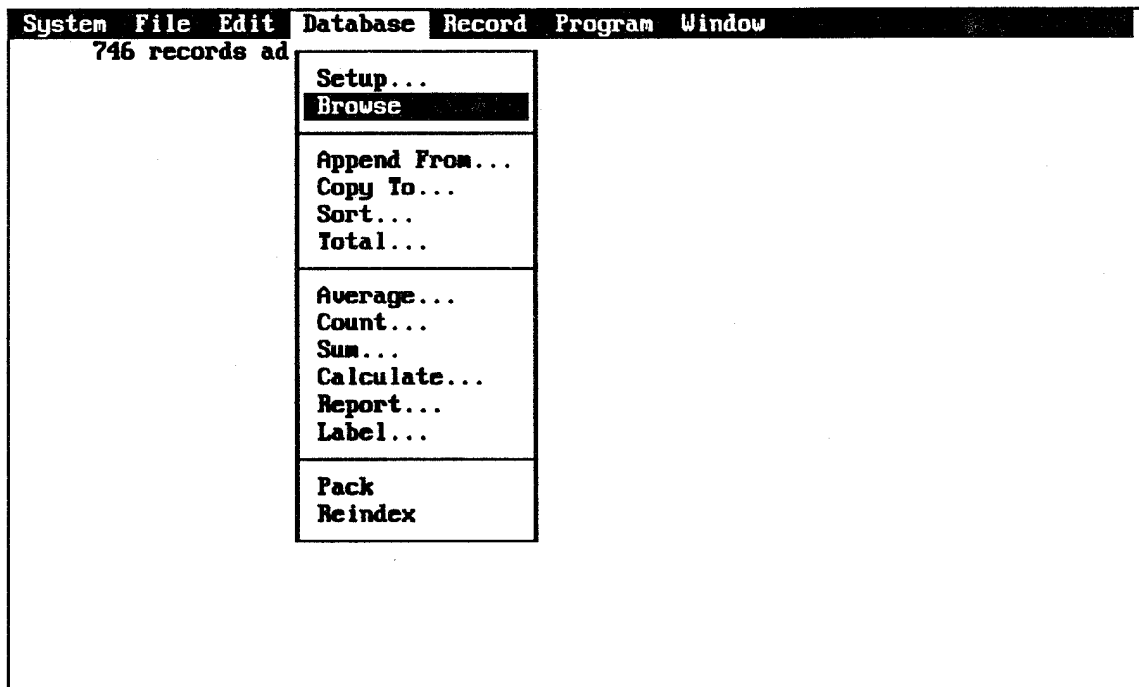
## **SFACCESS**

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12. After filling in the "FOR Clause: <expl.>" field, and pressing the ENTER key,
- press the TAB key to move to the "<OK>" field, and
  - press the ENTER key to again display the "Append From:" pop-up window, as shown in the following illustration.



13. At the "Append From:" pop-up window,
- press the TAB key to move to the "<OK>" field
  - press the ENTER key to append, or bring SFACCESS data into the FoxPro program
  - press the ALT and D keys simultaneously in order to display the "Database" option's pull-down menu, which contains a list of database command options, and
  - use the UP and DOWN ARROW keys to highlight and select the "Browse. . ." option, as shown in the following illustration.



## SFACCESS

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14. Finally, after the "Browse" option has been selected

- press the ENTER key to display the imported SFACCESS data, as shown in the following illustration.

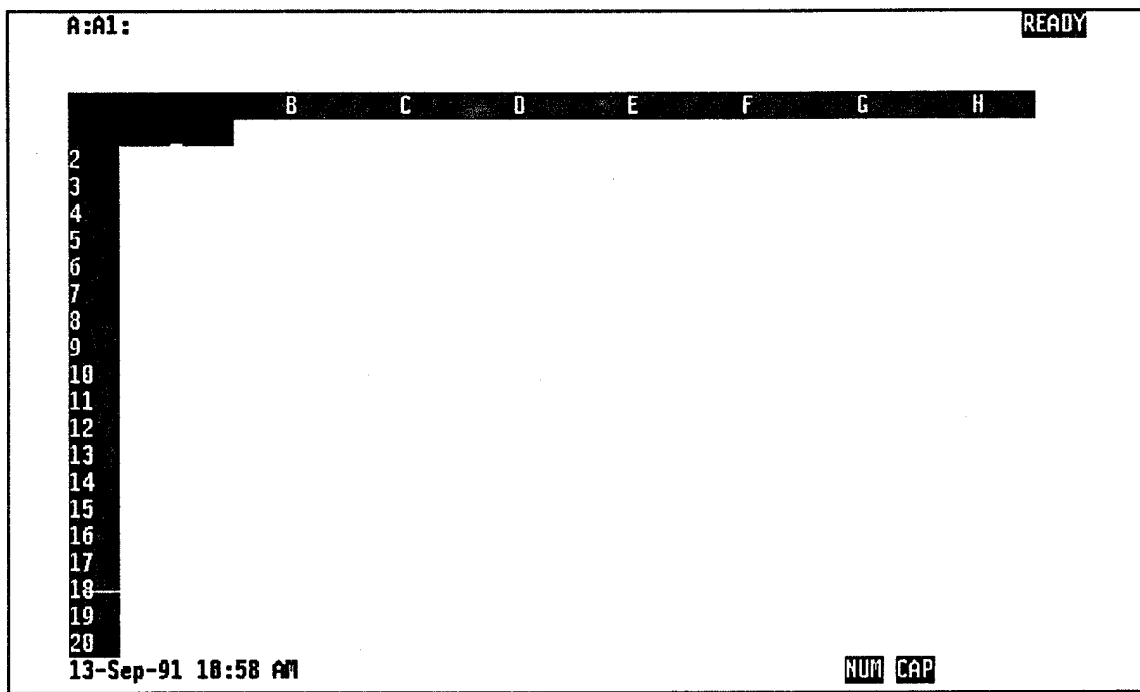
| System File Edit Database Record Program Window Browse |          |               |        |         |        |        |          |
|--------------------------------------------------------|----------|---------------|--------|---------|--------|--------|----------|
| DMIMPORT                                               |          |               |        |         |        |        |          |
| Log_date                                               | Log_time | Faults        | Data_0 | Data_1  | Data_2 | Data_4 | Data_5   |
| 02/28/91                                               | 09:20    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 910.000  |
| 02/28/91                                               | 09:25    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 951.000  |
| 02/28/91                                               | 09:30    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 904.000  |
| 02/28/91                                               | 09:35    | .....678..... | 75.000 | 150.000 | 50.000 | 31.800 | 1015.800 |
| 02/28/91                                               | 09:40    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1040.800 |
| 02/28/91                                               | 09:45    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1001.800 |
| 02/28/91                                               | 09:50    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1114.800 |
| 02/28/91                                               | 09:55    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1147.800 |
| 02/28/91                                               | 10:00    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1180.800 |
| 02/28/91                                               | 10:05    | .....678..... | 75.000 | 150.000 | 50.000 | 31.800 | 1212.600 |
| 02/28/91                                               | 10:10    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1245.600 |
| 02/28/91                                               | 10:15    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1278.600 |
| 02/28/91                                               | 10:20    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1311.600 |
| 02/28/91                                               | 10:25    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1344.600 |
| 02/28/91                                               | 10:30    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1377.600 |
| 02/28/91                                               | 10:35    | .....678..... | 75.000 | 150.000 | 50.000 | 31.800 | 1409.400 |
| 02/28/91                                               | 10:40    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1442.400 |
| 02/28/91                                               | 10:45    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1475.400 |
| 02/28/91                                               | 10:50    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1500.400 |
| 02/28/91                                               | 10:55    | .....678..... | 75.000 | 150.000 | 50.000 | 33.000 | 1541.400 |

At this point, the user is able to manipulate the imported SFACCESS data as required.

## LOTUS 1-2-3

Using Lotus 1-2-3 software to import SFACCESS data is described in the following procedure.

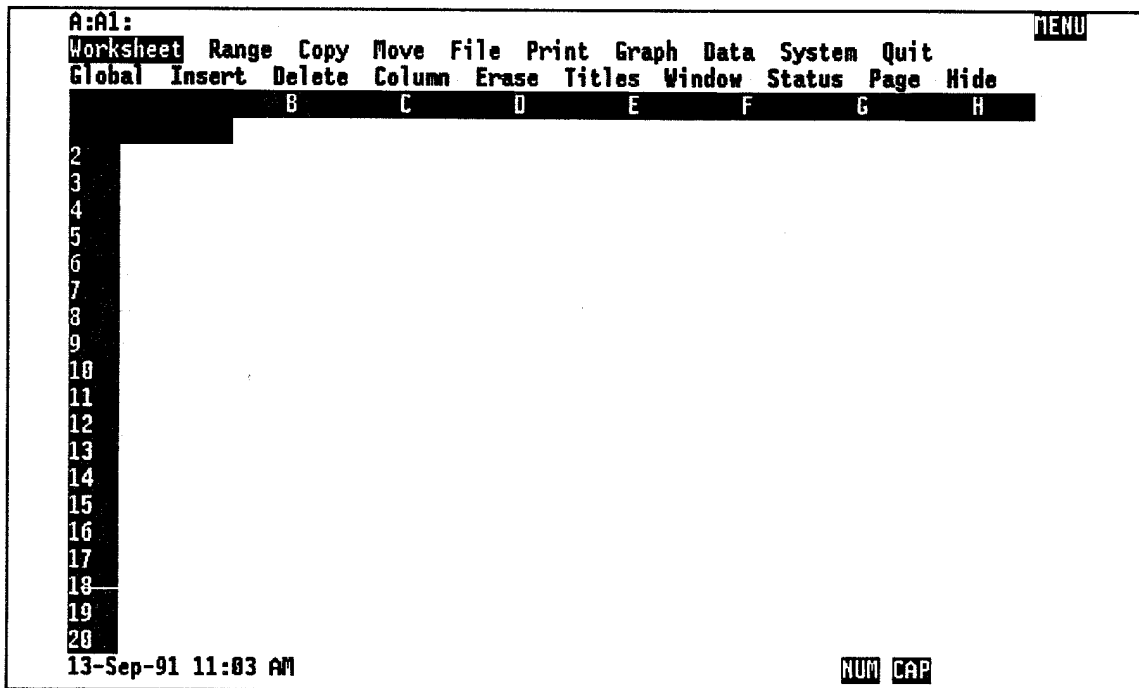
1. After entering the Lotus program, a "blank" screen is displayed, as shown in the following illustration.



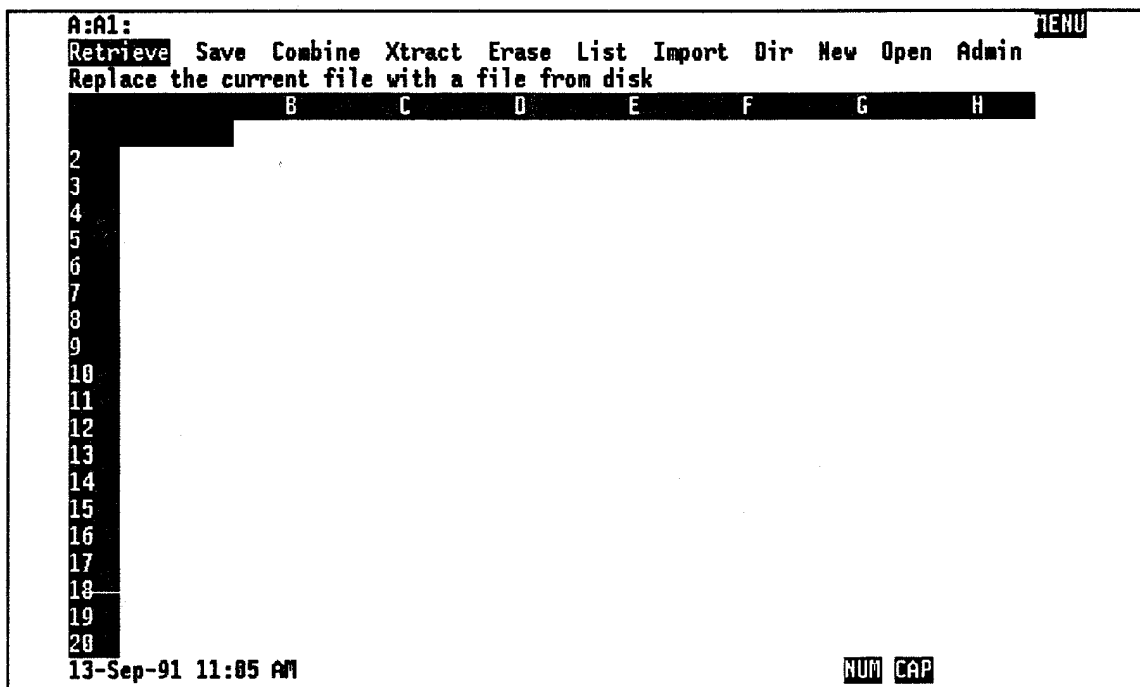
## **SFACCESS**

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2. At the "blank" screen,
  - press the FORWARD SLASH (/) key to display the MAIN MENU screen, as shown in the following illustration.



3. At the MAIN MENU screen,
- press the letter F key, or
  - use the LEFT and RIGHT ARROW keys to highlight and select the "File" option, and then
  - press the ENTER key to display the File Menu, as shown in the following illustration.

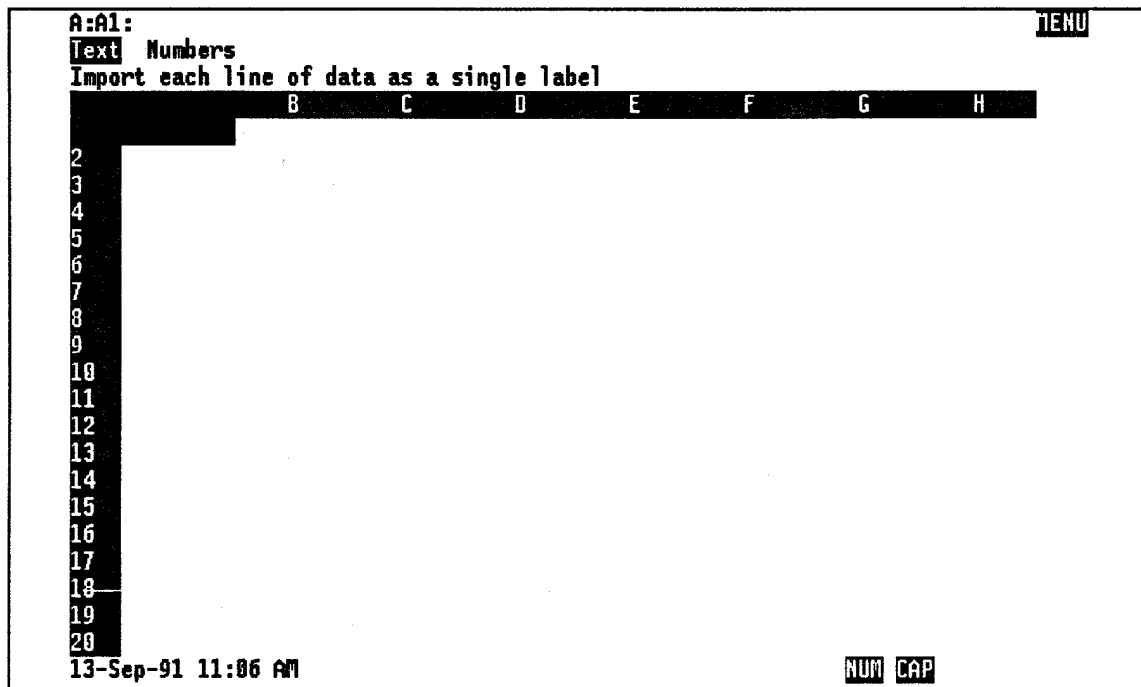


## **SFACCESS**

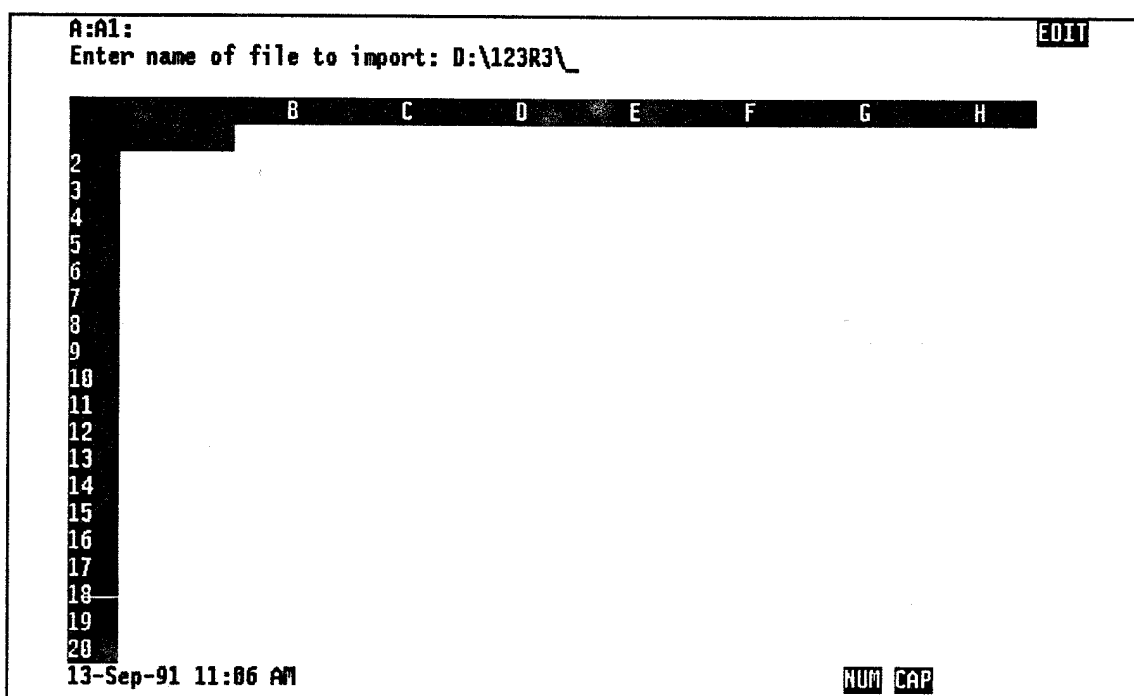
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4. At the File Menu,

- press the letter I key, or
- use the LEFT and RIGHT ARROW keys to highlight and select the "Import" option, and then
- press the ENTER key to display the Import Menu, as shown in the following illustration.



5. At the Import Menu,
- press the letter N key, or
  - use the LEFT and RIGHT ARROW keys to highlight and select the "Numbers" option, and then
  - press the ENTER key to display an "Import Edit" prompt, as shown in the following illustration.



## **SFACCESS**

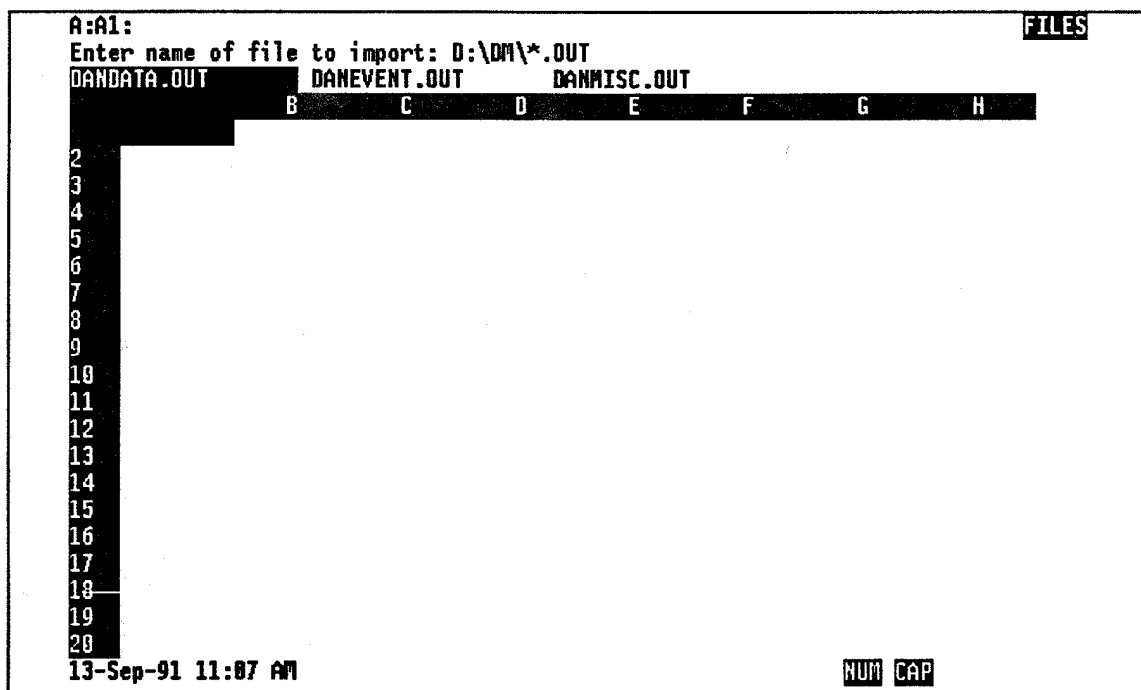
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6. At the "Import Edit" prompt,

- enter the name of the file to be imported by first backspacing over the defaulted file shown in the "Enter name of file to import:" field
- type in the specific file name to bypass the next screen, which displays a list of available files, and automatically proceed to the data file screen on the next page, or as an alternative
- type in the file name and wild card characters (such as for example)

D:\DM\\*.OUT

- and press the ENTER key to display a screen with a list of available files, as shown in the following illustration.



7. At the previous screen displaying the list of available files,
- use the LEFT and RIGHT ARROW keys to highlight and select the desired data file,
  - press the ENTER key to initiate the import process, which displays a "WAIT" message in the upper right corner of the screen. After completion of the import process, a data file screen is displayed, as shown in the following illustration.

A:A1: '\DATA\_LOG\_START

READY

|                    | B              | C           | D         | E          | F         | G         | H                |
|--------------------|----------------|-------------|-----------|------------|-----------|-----------|------------------|
|                    | \DATA_LOG2488  | TEST 123456 | 2488      | TEST654321 | AGA3 2488 | REAL      |                  |
| 2                  | \DATA_LOG07:00 | 5           | 6         | METR_TEMP  | METR_PRES | DIFF_PRES | LOG_VOL:0        |
| 3                  | \DATA_LOG\     |             |           |            |           |           |                  |
| 4                  | Date           | Time        | Faults    | Meter T    | Meter P   | Diff P    | Log VolToday Vol |
| 5                  | 02/28/91       | 06:25       | .....678. | 75         | 150       | 50        | 33 6556.4        |
| 6                  | 02/28/91       | 06:30       | .....678. | 75         | 150       | 50        | 33 6589.4        |
| 7                  | 02/28/91       | 06:35       | .....678. | 75         | 150       | 50        | 33 6622.4        |
| 8                  | 02/28/91       | 06:40       | .....678. | 75         | 150       | 50        | 31.8 6654.2      |
| 9                  | 02/28/91       | 06:45       | .....678. | 75         | 150       | 50        | 33 6687.2        |
| 10                 | 02/28/91       | 06:50       | .....678. | 75         | 150       | 50        | 33 6720.2        |
| 11                 | 02/28/91       | 06:55       | .....678. | 75         | 150       | 50        | 33 6753.2        |
| 12                 | 02/28/91       | 07:00       | .....678. | 75         | 150       | 50        | 33 6786.2        |
| 13                 | 02/28/91       | 07:05       | .....678. | 75         | 150       | 50        | 31.9 31.9        |
| 14                 | 02/28/91       | 07:10       | .....678. | 75         | 150       | 50        | 33 64.9          |
| 15                 | 02/28/91       | 07:15       | .....678. | 75         | 150       | 50        | 33 97.9          |
| 16                 | 02/28/91       | 07:20       | .....678. | 75         | 150       | 50        | 33 130.9         |
| 17                 | 02/28/91       | 07:25       | .....678. | 75         | 150       | 50        | 32.9 163.8       |
| 18                 | 02/28/91       | 07:30       | .....678. | 75         | 150       | 50        | 33 196.8         |
| 19                 | 02/28/91       | 07:35       | .....678. | 75         | 150       | 50        | 31.9 228.7       |
| 20                 | 02/28/91       | 07:40       | .....678. | 75         | 150       | 50        | 33 261.7         |
| 13-Sep-91 11:08 AM |                |             |           |            |           |           | NUM CAP          |

At this point, the user is able to manipulate the imported SFACCESS data as required.

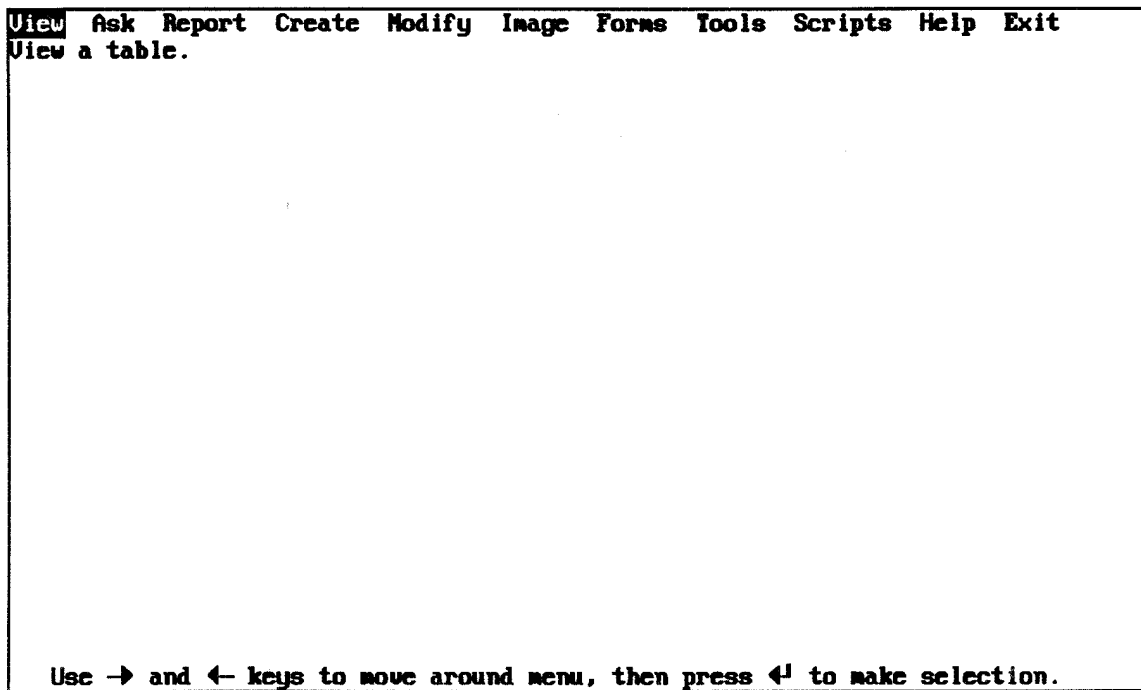
## **SFACCESS**

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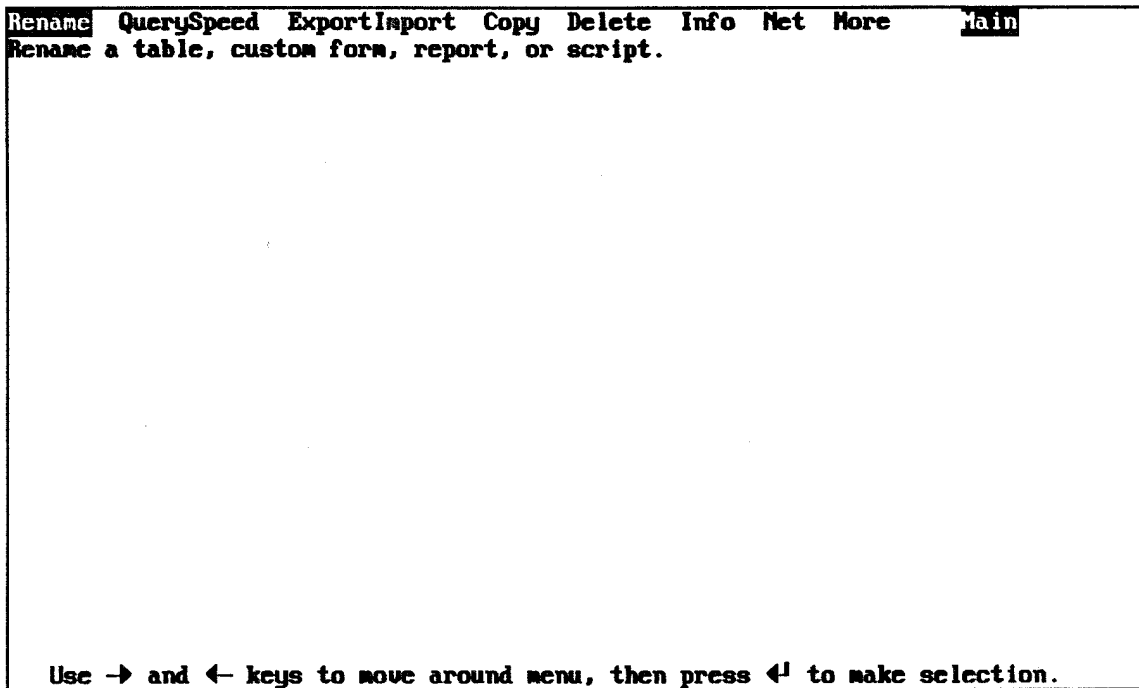
### **PARADOX**

Using PARADOX software to import SFACCESS data is described in the following steps.

1. After entering the PARADOX program, the MAIN MENU screen is displayed, as shown in the following illustration.



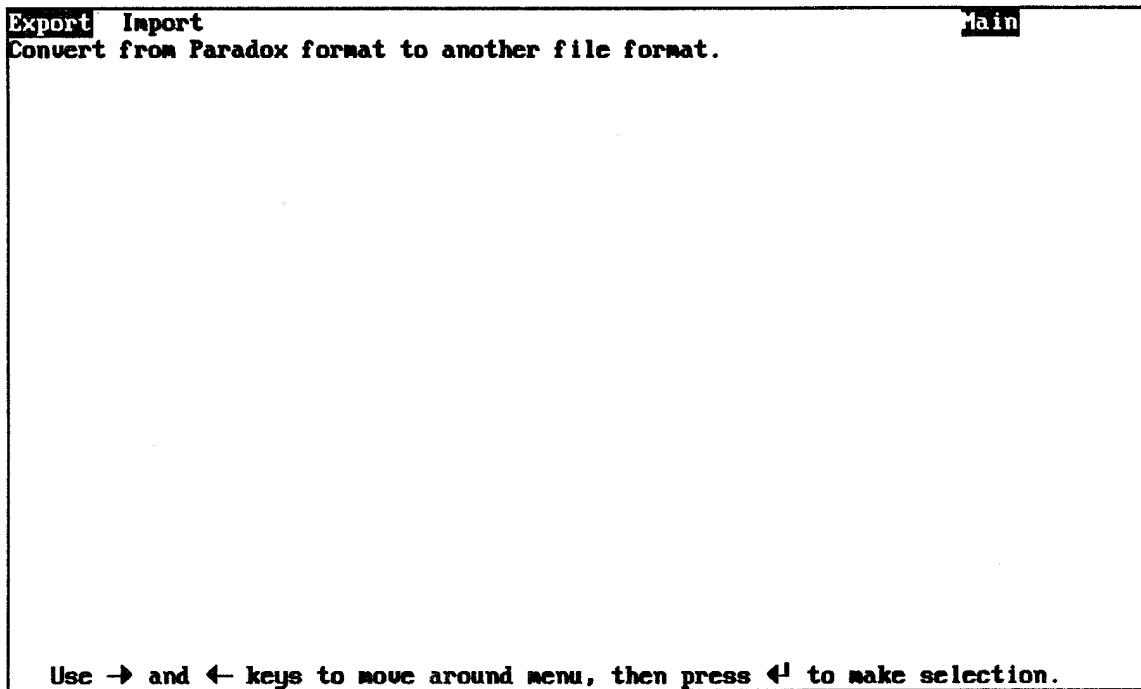
2. At the MAIN MENU screen,
- use the RIGHT and LEFT ARROW keys to highlight and select the "Tools" option, and
  - press the ENTER key to display the screen that provides the "Tools" menu, as shown in the following illustration,



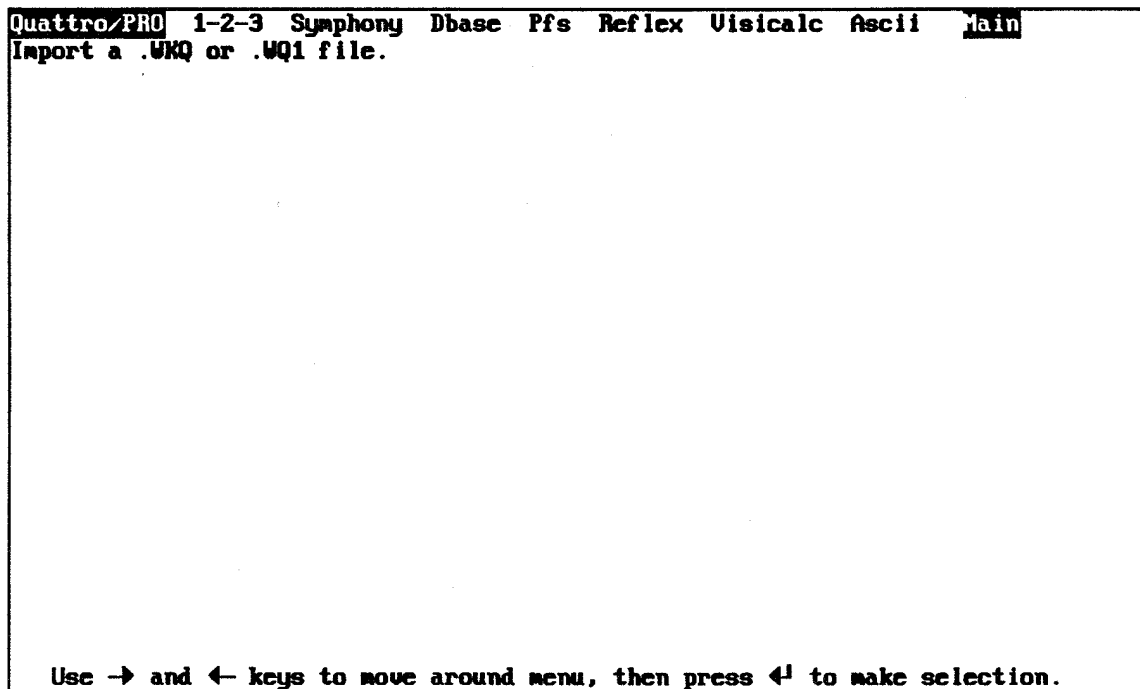
## **SFACCESS**

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3. At the screen that provides the "Tools" menu,
  - use the RIGHT and LEFT ARROW keys to highlight and select the "ExportImport" option, and
  - press the ENTER key to display the screen that provides the "ExportImport" menu, as shown in the following illustration.



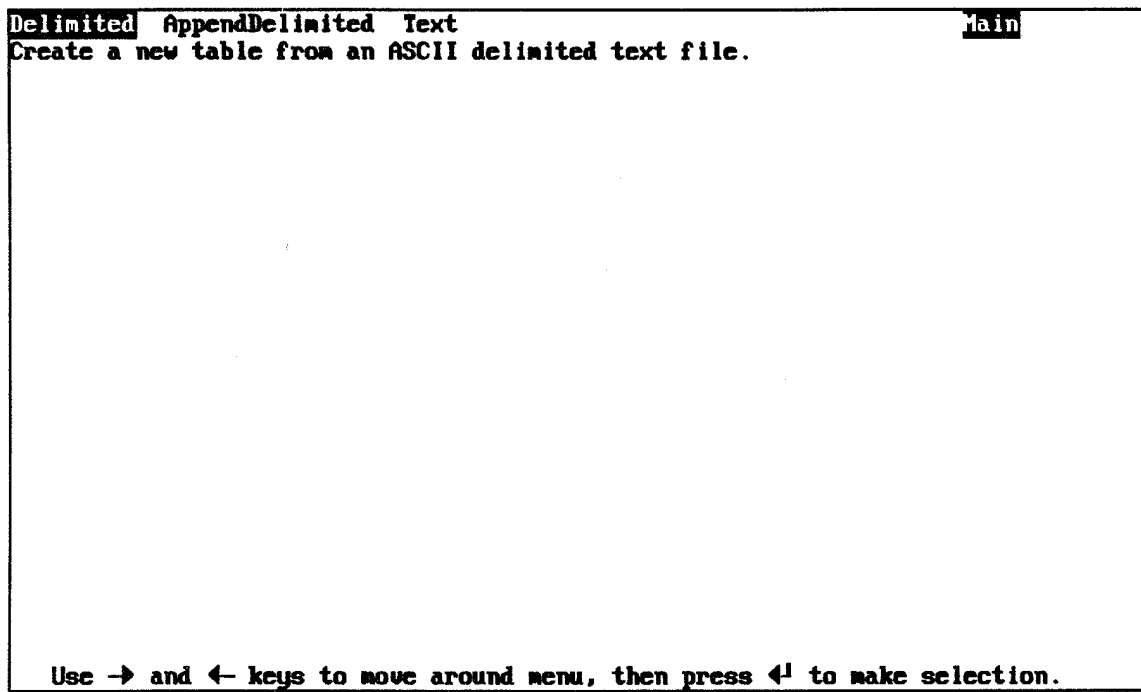
4. At the screen that provides the "ExportImport" menu,
- use the RIGHT and LEFT ARROW keys to highlight and select the "Import" option, and
  - press the ENTER key to display the screen that provides the "Import" menu, as shown in the following illustration.



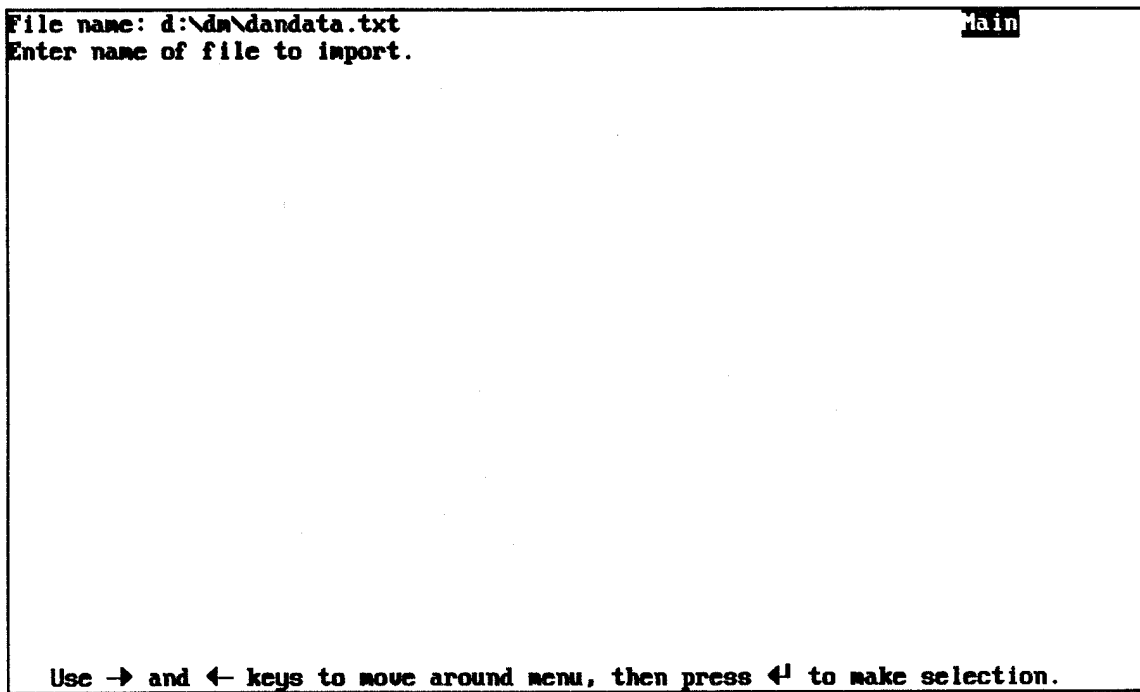
## **SFACCESS**

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5. At the screen that provides the "Import" menu,
- use the RIGHT and LEFT ARROW keys to highlight and select the "ASCII" option, and
  - press the ENTER key to display the screen that provides the "ASCII" menu, as shown in the following illustration.



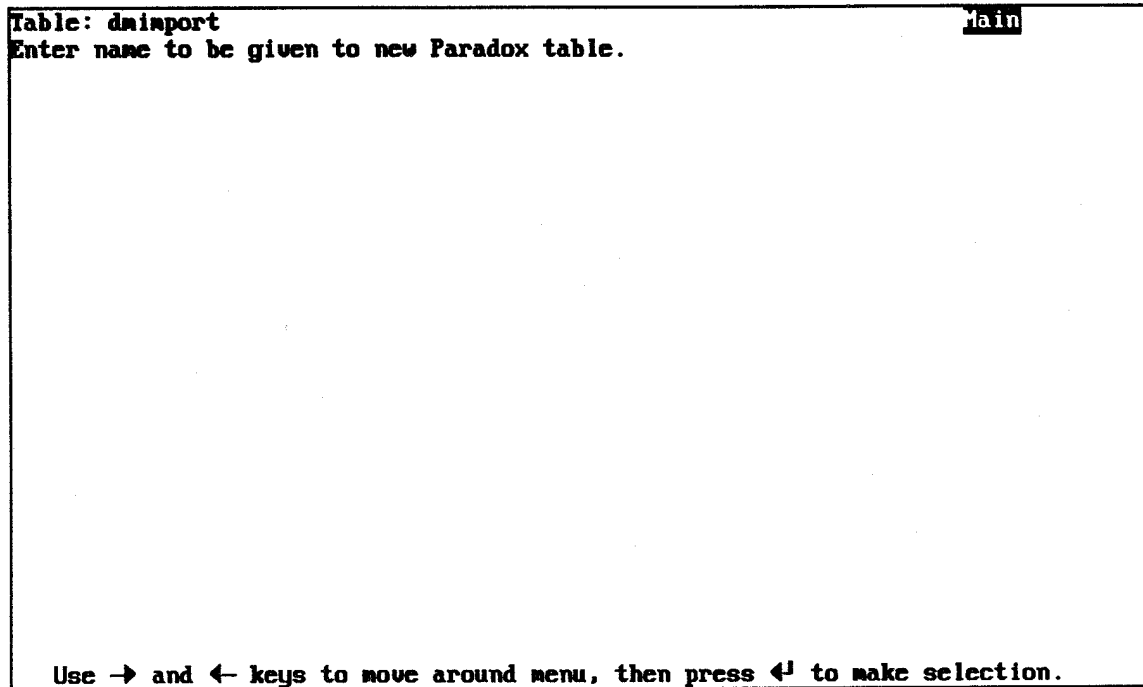
6. At the screen that provides the "ASCII" menu,
- make certain that the "ASCII" option is highlighted, and
  - press the ENTER key to display the screen where the name of the file to be imported is entered in the File Name field, as shown in the following illustration.



## **SFACCESS**

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7. After the name of the file to be imported is entered in the File Name field,
- press the ENTER key to display the screen where the name of the new Paradox table is entered in the Table field, as shown in the following illustration.



8. After the name of the new Paradox table is entered in the Table field,
- press the ENTER key to display the screen where the newly named table is viewed, as shown in the following illustration.

| Viewing Dnimport table: Record 1 of 15 |          |          |         |               | Main  |
|----------------------------------------|----------|----------|---------|---------------|-------|
| DNIMPORT                               | Field-1  | Field-2  | Field-3 | Field-4       | Fi    |
| 1                                      | TEST LOC | 19910228 | 06:25   | .....678..... | ***** |
| 2                                      | TEST LOC | 19910228 | 06:30   | .....678..... | ***** |
| 3                                      | TEST LOC | 19910228 | 06:35   | .....678..... | ***** |
| 4                                      | TEST LOC | 19910228 | 06:40   | .....678..... | ***** |
| 5                                      | TEST LOC | 19910228 | 06:45   | .....678..... | ***** |
| 6                                      | TEST LOC | 19910228 | 06:50   | .....678..... | ***** |
| 7                                      | TEST LOC | 19910228 | 06:55   | .....678..... | ***** |
| 8                                      | TEST LOC | 19910228 | 07:00   | .....678..... | ***** |
| 9                                      | TEST LOC | 19910228 | 07:05   | .....678..... | ***** |
| 10                                     | TEST LOC | 19910228 | 07:10   | .....678..... | ***** |
| 11                                     | TEST LOC | 19910228 | 07:15   | .....678..... | ***** |
| 12                                     | TEST LOC | 19910228 | 07:20   | .....678..... | ***** |
| 13                                     | TEST LOC | 19910228 | 07:25   | .....678..... | ***** |
| 14                                     | TEST LOC | 19910228 | 07:30   | .....678..... | ***** |
| 15                                     | TEST LOC | 19910228 | 07:35   | .....678..... | ***** |

15 records converted

At this point, the user is able to manipulate the imported SFACCESS data as required.

## **SFACCESS**

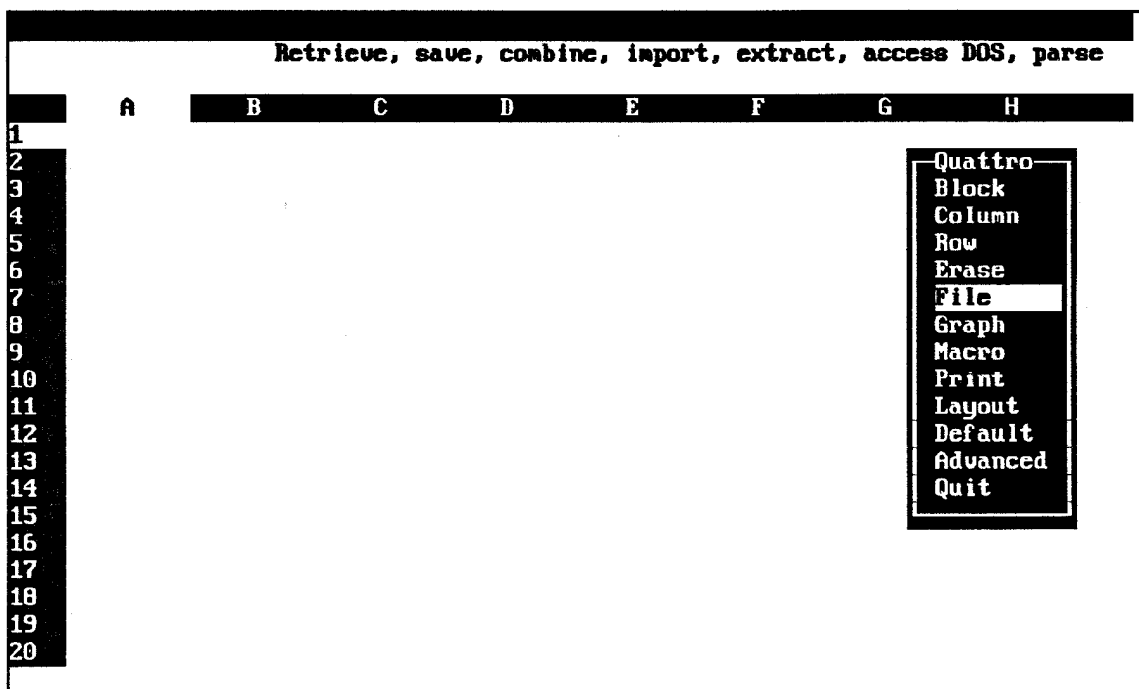
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### QUATTRO

Using Quattro Software to import SFACCESS data is described in the following procedure.

1. After entering the Quattro program,
  - press the FORWARD SLASH (/) key in order to access the QUATTRO pop-up window, which contains a list of MAIN MENU commands.

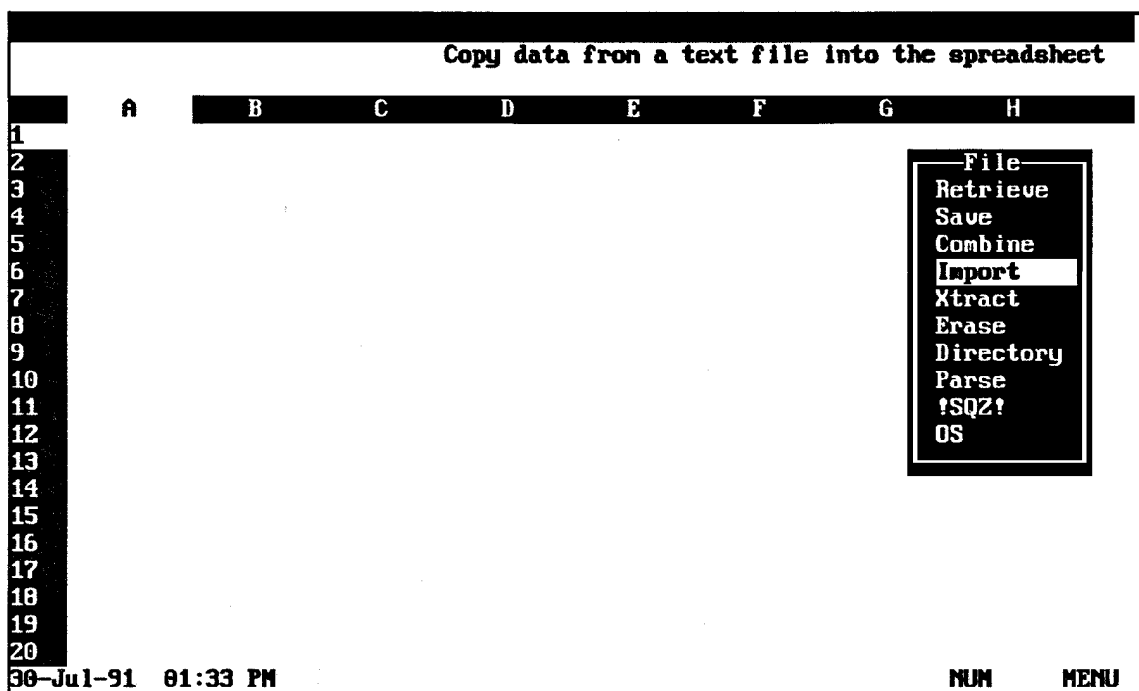
2. At the **QUATTRO pop-up** window, either
- press the letter F key, or
  - use the UP and DOWN ARROW keys to highlight and select the "File" option, as shown in the following illustration, and then
  - press the ENTER key to access the FILE pop-up window.



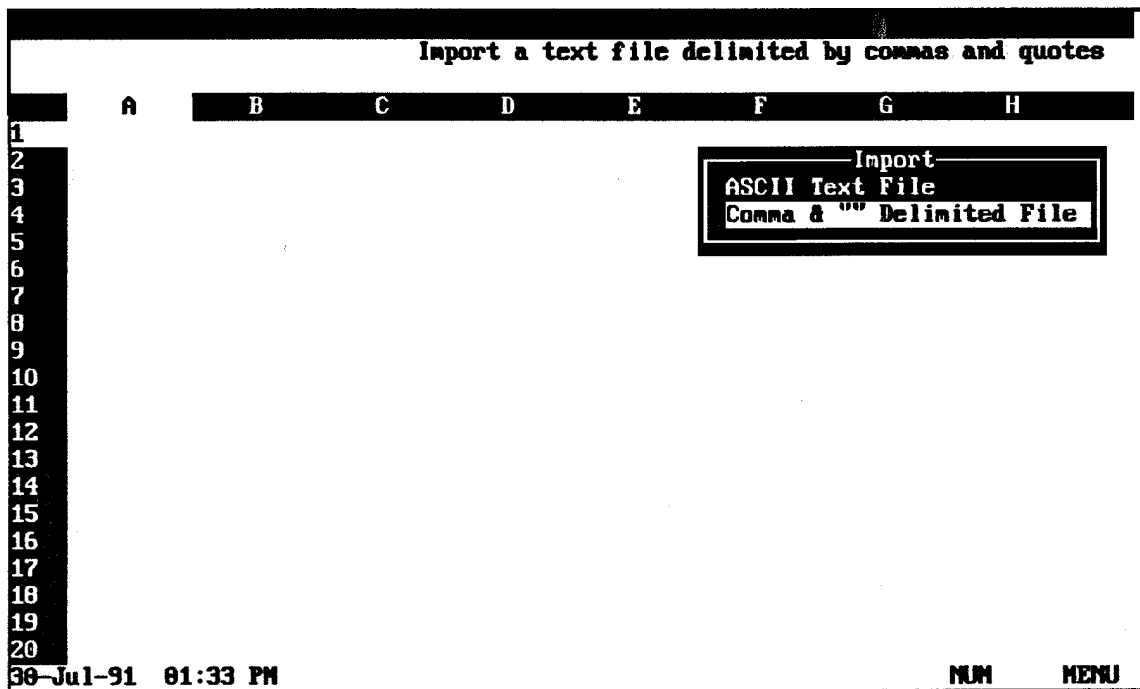
## **SFACCESS**

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3. At the FILE pop-up window, either
- type the letter I key, or
  - use the UP and DOWN ARROW keys to highlight and select the "Import" option, as shown in the following illustration, and then
  - press the ENTER key to access the IMPORT pop-up window.



4. At the IMPORT pop-up window,
- use the UP and DOWN ARROW keys to highlight and select the "Comma & Delimited File" option, as shown in the following illustration, and
  - press the ENTER key to access the "edit" line at the top of screen.



## SFACCESS

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5. After accessing the "edit" line, enter the path name of the SFACCESS export file to be imported, as shown in the following illustration.

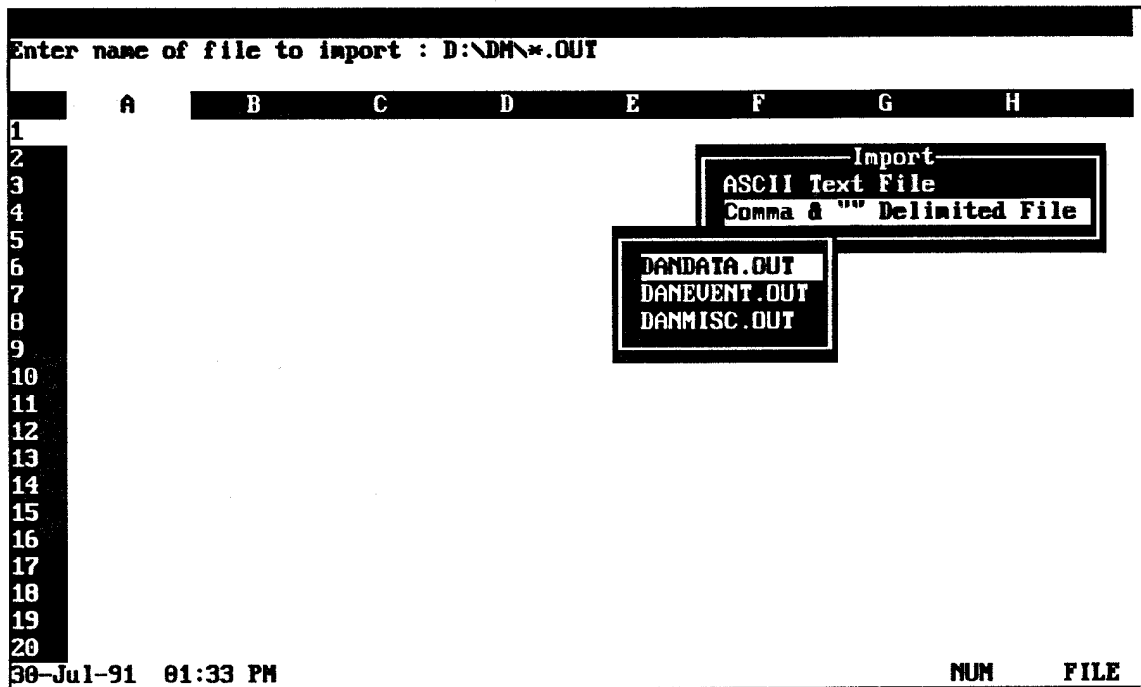
The screenshot displays the SFACCESS program interface. At the top, a text box contains the prompt "Enter name of file to import : D:\DM\\*.OUT". Below this is a table with columns labeled A through H. The first column (A) contains row numbers 1 through 20. A dialog box titled "Import" is open, showing two options: "ASCII Text File" and "Comma & "" Delimited File". The bottom of the screen shows the date and time "30-Jul-91 01:33 PM" and the words "NUM" and "EDIT" on the right.

|    | A | B | C | D | E | F | G | H |
|----|---|---|---|---|---|---|---|---|
| 1  |   |   |   |   |   |   |   |   |
| 2  |   |   |   |   |   |   |   |   |
| 3  |   |   |   |   |   |   |   |   |
| 4  |   |   |   |   |   |   |   |   |
| 5  |   |   |   |   |   |   |   |   |
| 6  |   |   |   |   |   |   |   |   |
| 7  |   |   |   |   |   |   |   |   |
| 8  |   |   |   |   |   |   |   |   |
| 9  |   |   |   |   |   |   |   |   |
| 10 |   |   |   |   |   |   |   |   |
| 11 |   |   |   |   |   |   |   |   |
| 12 |   |   |   |   |   |   |   |   |
| 13 |   |   |   |   |   |   |   |   |
| 14 |   |   |   |   |   |   |   |   |
| 15 |   |   |   |   |   |   |   |   |
| 16 |   |   |   |   |   |   |   |   |
| 17 |   |   |   |   |   |   |   |   |
| 18 |   |   |   |   |   |   |   |   |
| 19 |   |   |   |   |   |   |   |   |
| 20 |   |   |   |   |   |   |   |   |

30-Jul-91 01:33 PM NUM EDIT

In this example, the screen indicates the use of a wildcard character to access the available files.

6. After the path name of the SFACCESS export file has been entered,
- press the ENTER key to display a pop-up window that lists the files available for importation, as shown in the following illustration.



## SFACCESS

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7. At the pop-up window,
- use the UP and DOWN ARROW keys to highlight and select the appropriate file, and
  - press the ENTER key to display the imported file, as shown in the following illustration.

|                    |                |       |               |            |           |           |           |           |        |       |
|--------------------|----------------|-------|---------------|------------|-----------|-----------|-----------|-----------|--------|-------|
| H1:                |                |       |               |            |           |           |           |           |        |       |
|                    | A              | B     | C             | D          | E         | F         | G         |           | H      |       |
| 1                  | \DATA_LOGDUAL3 | TES   | 13131313DUAL3 | TES3131313 | AGA3      | DUALREAL  |           |           |        |       |
| 2                  | \DATA_LOG06:00 |       | 60            | 9          | METR_PRES | DIFF_PRES | METR_TEMP | METR_PRES |        |       |
| 3                  | \DATA_LOG\     |       |               |            |           |           |           |           |        |       |
| 4                  | Date           | Time  | Faults        | Meter      | Pre       | Diff      | Pre       | Meter     | TMeter | Pre   |
| 5                  | 03/04/91       | 12:00 | 1234567..     | 494        | 35.1      | 63        | 431       | 74.2      |        |       |
| 6                  | 03/04/91       | 13:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 7                  | 03/04/91       | 14:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 8                  | 03/04/91       | 15:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 9                  | 03/04/91       | 16:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 10                 | 03/04/91       | 17:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 11                 | 03/04/91       | 18:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 12                 | 03/04/91       | 19:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 13                 | 03/04/91       | 20:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 14                 | 03/04/91       | 21:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 15                 | 03/04/91       | 22:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 16                 | 03/04/91       | 23:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 17                 | 03/05/91       | 00:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 18                 | 03/05/91       | 01:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 19                 | 03/05/91       | 02:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 20                 | 03/05/91       | 03:00 | 1234567..     | 500        | 40        | 66        | 400       | 85        |        |       |
| 30-Jul-91 01:35 PM |                |       |               |            |           |           |           |           | NUM    | READY |

At this point, the user is able to manipulate the imported SFACCESS file data as required.

## QUATTRO PRO

Using Quattro Pro software to import SFACCESS data is described in the following steps.

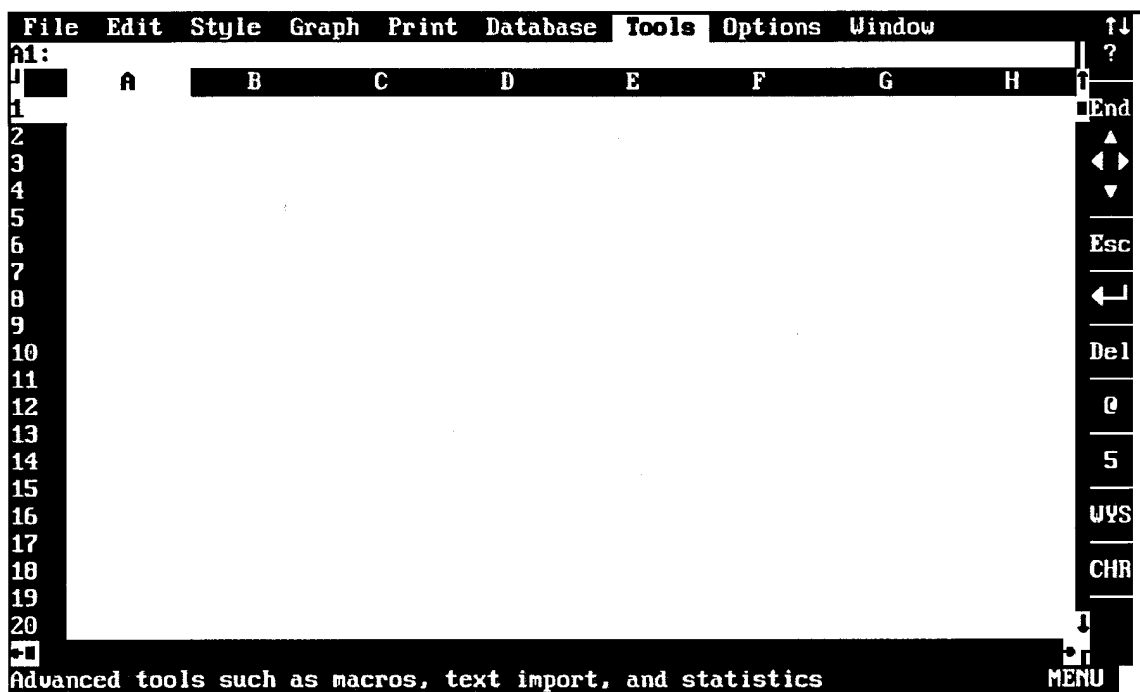
1. After entering the Quattro Pro program,
  - press the FORWARD SLASH (/) key in order to access the MAIN MENU screen, which is shown in the following illustration.



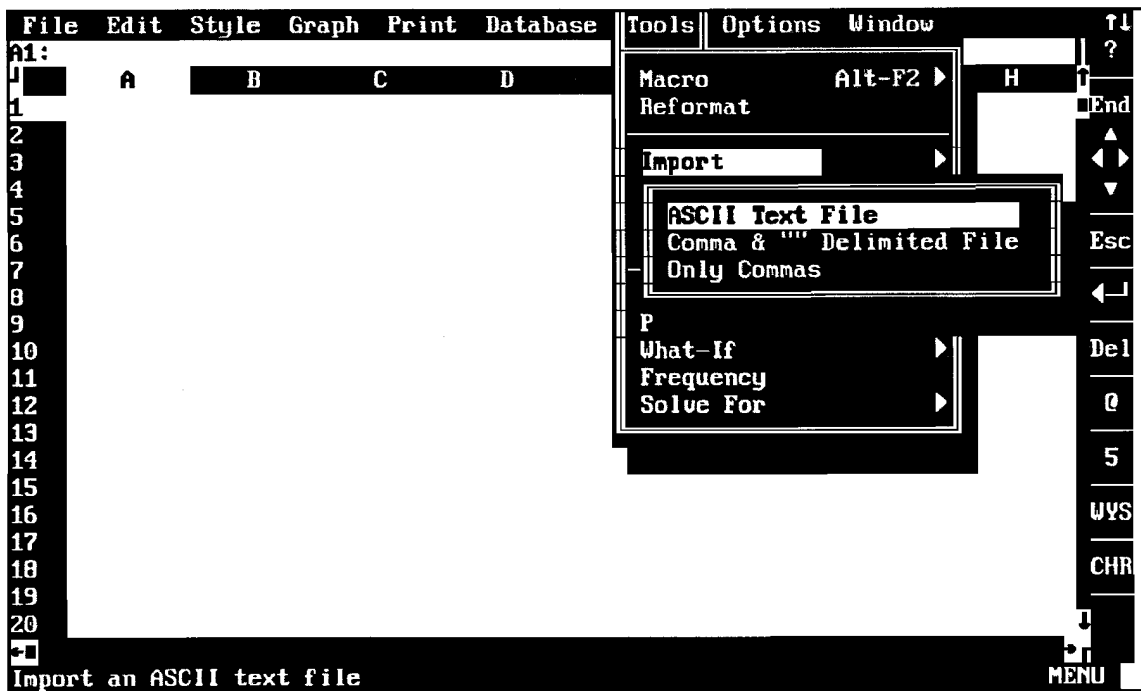
## **SFACCESS**

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2. At the MAIN MENU screen, either
  - press the letter T key, or
  - use the RIGHT and LEFT ARROW keys to highlight and select the "Tools" option, as shown in the following illustration, and then
  - press the ENTER key to display the "Tools" pull-down menu.



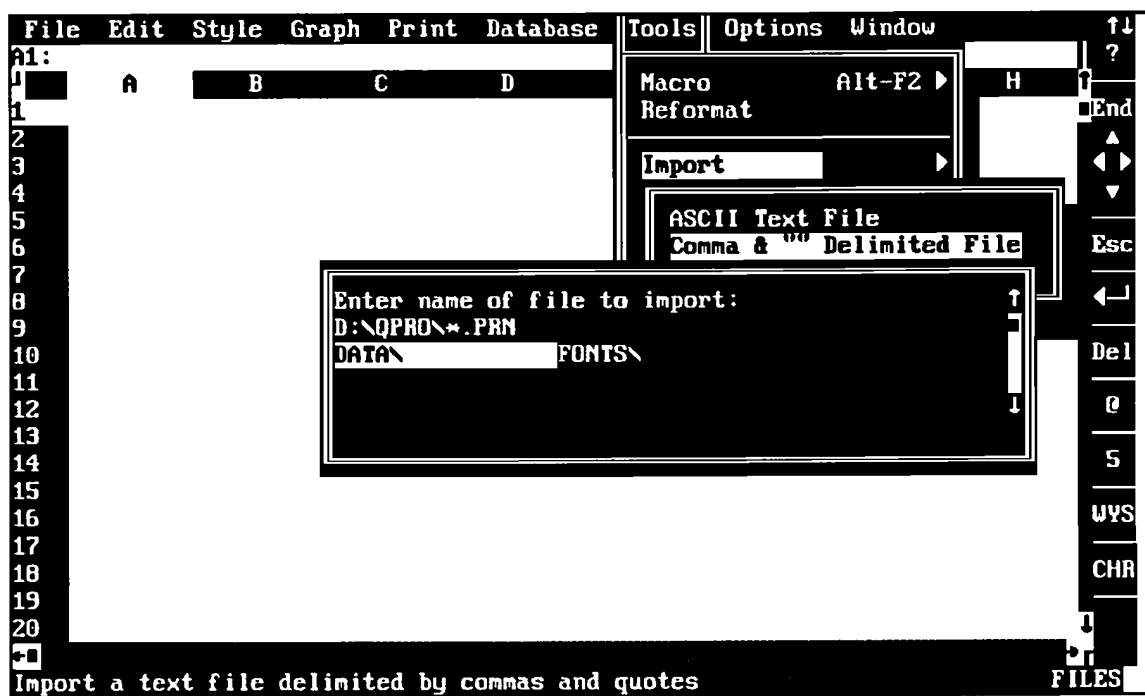
3. At the "Tools" pull-down menu,
  - press the letter I key, or
  - use the UP and DOWN ARROW keys to highlight and select the "Import" option, and then
  - press the ENTER key to display the "Import" pop-up window, as shown in the following illustration.



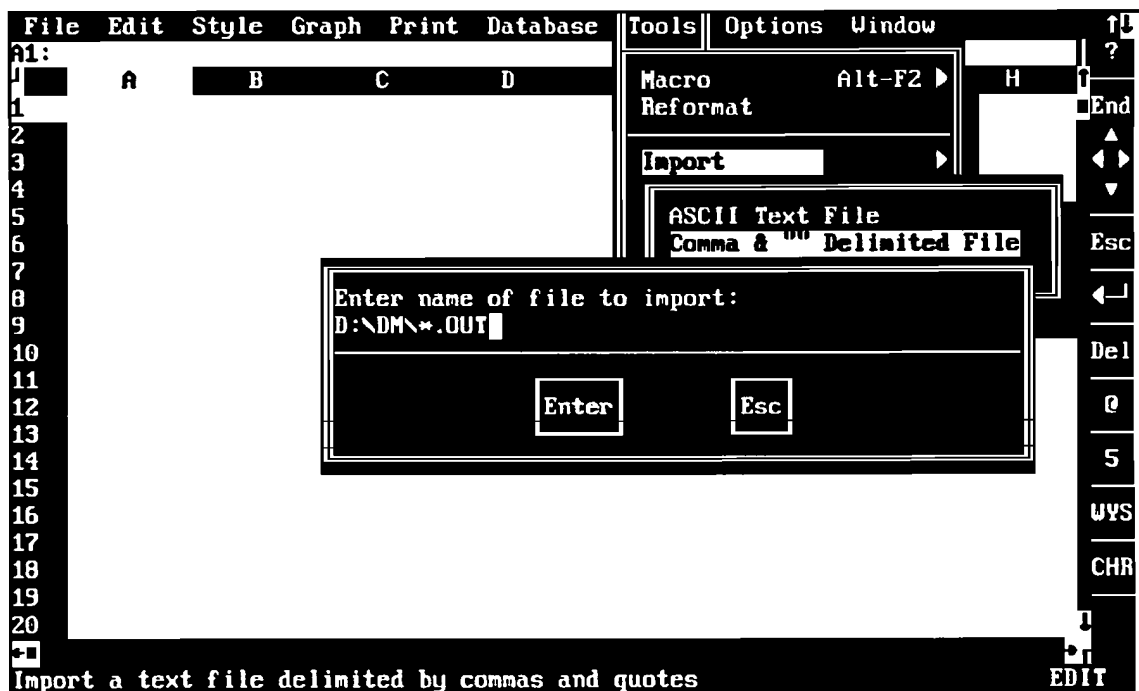
## SFACCESS

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4. At the "Import" pop-up window,
- press the letter C key, or
  - use the UP and DOWN ARROW keys to highlight and select the "Comma & " " Delimited File" option, and then
  - press the ENTER key to display a pop-up window, which is used for entering the name of the file to be imported, as shown in the following illustration.



5. At the pop-up window used for entering the name of the file to be imported,
- press the ESC (Escape) key to display the same pop-up window used for entering the name of the file to be imported, but reconfigured with "Enter" and "Esc" options, as shown in the following illustration
  - backspace over the defaulted file name,
  - enter the path name of the SFACCESS export files.

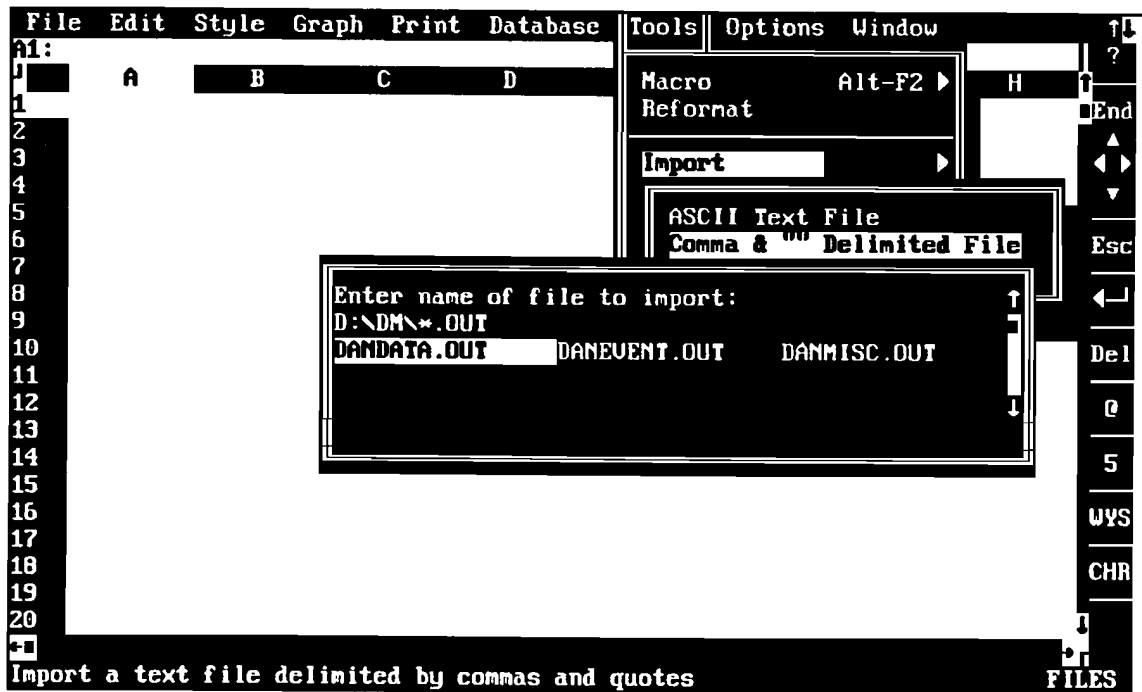


In this example, the screen indicates the use of a wildcard character to access the available files.

## SFACCESS

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6. After the path name of the SFACCESS export files has been entered,
- press the ENTER key to display a pop-up window, which lists the files that are available for importing, as shown in the following illustration,



7. At the pop-up window, which lists the files that are available for importing,
  - use the RIGHT and LEFT ARROW keys to highlight and select the appropriate file, and
  - press the ENTER key to display the imported file, as shown in the following illustration.

|    | A             | B            | C         | D          | E         | F         | G         | H       |
|----|---------------|--------------|-----------|------------|-----------|-----------|-----------|---------|
| 1  | DATA_LOGDUAL3 | TES 13131313 | DUAL3     | TES3131313 | AGA3      | DUALREAL  |           |         |
| 2  | DATA_LOG06:00 | 60           | 9         | METR_PRES  | DIFF_PRES | METR_TEMP | METR_PRES |         |
| 3  | DATA_LOG\     |              |           |            |           |           |           |         |
| 4  | Date          | Time         | Faults    | Meter      | Pre       | Diff      | Pre       | Meter T |
| 5  | 03/04/91      | 12:00        | 1234567.. | 494        | 35.1      | 63        | 431       | 74.2    |
| 6  | 03/04/91      | 13:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 7  | 03/04/91      | 14:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 8  | 03/04/91      | 15:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 9  | 03/04/91      | 16:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 10 | 03/04/91      | 17:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 11 | 03/04/91      | 18:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 12 | 03/04/91      | 19:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 13 | 03/04/91      | 20:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 14 | 03/04/91      | 21:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 15 | 03/04/91      | 22:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 16 | 03/04/91      | 23:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 17 | 03/05/91      | 00:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 18 | 03/05/91      | 01:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 19 | 03/05/91      | 02:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |
| 20 | 03/05/91      | 03:00        | 1234567.. | 500        | 40        | 66        | 400       | 85      |

SHEET1.WQ1 [11] NUM READY

At this point, the user is able to manipulate the imported SFACCESS file data as required.

## **WARRANTY CLAIM REQUIREMENTS**

To make a warranty claim, you, the Purchaser, must:

1. Provide Daniel with proof of the Date of Purchase and proof of the Date of Shipment of the product in question.
2. Return the product to Daniel within twelve (12) months of the date of original shipment of the product, or within eighteen (18) months of the date of original shipment of the product to destinations outside of the United States. The Purchaser must prepay any shipping charges. In addition, the Purchaser is responsible for insuring any product shipped for return, and assumes the risk of loss of the product during shipment.
3. To obtain Warranty service or to locate the nearest Daniel office, sales, or service center call (713) 467-6000, Fax (281) 897-2901, or contact:

Daniel Measurement and Control  
P. O. Box 55435  
Houston, Texas 77255

When contacting Daniel for product service, the purchaser is asked to provide information as indicated on the following "Customer Problem Report".

Daniel Measurement and Control offers both on call and contract maintenance service designed to afford single source responsibility for all its products.

Daniel Industries, Inc. reserves the right to make changes at any time to any product to improve its design and to insure the best available product.



**DANIEL INDUSTRIES, INC.**  
**CUSTOMER PROBLEM REPORT**

FOR FASTEST SERVICE, COMPLETE THIS FORM, AND RETURN IT ALONG WITH THE AFFECTED EQUIPMENT TO CUSTOMER SERVICE AT THE ADDRESS INDICATED BELOW.

COMPANY NAME:\_\_\_\_\_

TECHNICAL CONTACT:\_\_\_\_\_ PHONE:\_\_\_\_\_

REPAIR P. O. #:\_\_\_\_\_ IF WARRANTY, UNIT S/N:\_\_\_\_\_

INVOICE ADDRESS:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

SHIPPING ADDRESS:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

RETURN SHIPPING METHOD:\_\_\_\_\_

EQUIPMENT MODEL #:\_\_\_\_\_ S/N:\_\_\_\_\_ FAILURE DATE:\_\_\_\_\_

DESCRIPTION OF PROBLEM:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

WHAT WAS HAPPENING AT TIME OF FAILURE?\_\_\_\_\_

\_\_\_\_\_

ADDITIONAL COMMENTS:\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

REPORT PREPARED BY:\_\_\_\_\_ TITLE:\_\_\_\_\_

IF YOU REQUIRE TECHNICAL ASSISTANCE, PLEASE FAX OR WRITE THE MAIN CUSTOMER SERVICE DEPARTMENT AT:

DANIEL MEASUREMENT AND CONTROL  
ATTN: CUSTOMER SERVICE  
19203 HEMPSTEAD HIGHWAY  
HOUSTON, TEXAS 77065

PHONE: (281) 897-2900  
FAX: (281) 897-2901





The sales and service offices of Daniel Industries, Inc. are located throughout the United States and in major countries overseas.

Please contact Daniel Measurement and Control at P. O. Box 55435, Houston, Texas 77255, or phone (713) 467-6000 for the location of the sales or service office nearest you.

Daniel Measurement and Control offers both on-call and contract maintenance service designed to provide single-source responsibility for all Daniel Measurement and Control products.

Daniel Measurement and Control reserves the right to make changes to any of its products or services at any time without prior notification in order to improve that product or service and to supply the best product or service possible.

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**DANIEL**

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